

Environmental Education

# Toolkit

*for Congregations*

# Toolkit

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This toolkit was first produced in 2008 in collaboration with Congregations Caring for Creation and the Alliance for Sustainability. Elements of this toolkit were first published by Hennepin County Environmental Services in the *Environmental Education Toolkit for Early Childhood Family Education Programs* and the *Environmental Education Toolkit for Community Groups* (both can be found at [www.hennepin.us/CommunityPower](http://www.hennepin.us/CommunityPower).)

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### **Hennepin County Environmental Services**

The county works with community partners to promote environmental stewardship. Our mission is to protect the environment and conserve resources for future generations. Learn more about our programs at [www.hennepin.us/environment](http://www.hennepin.us/environment).

### **Community POWER**

Since 2001, hundreds of community groups in the Twin Cities metro area have actively engaged their audiences in environmental education and action through the Community POWER (Partners On Waste Education and Reduction) program, sponsored by the Solid Waste Management Coordinating Board. These community groups have educated more than one million people and have helped more than 30,000 people take positive actions for the environment. Many of the activities and resources in this toolkit were created, tested or improved through Community POWER projects. To learn more about Community POWER, visit [www.rethinkrecycling.com/grants](http://www.rethinkrecycling.com/grants).

*For additional copies:*

*This toolkit may be downloaded for free at [www.hennepin.us/CommunityPower](http://www.hennepin.us/CommunityPower). Organizations in Hennepin County may order a printed version of the toolkit by contacting Hennepin County at 612-348-4168.*

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## Introduction

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Many faith traditions around the world devote a portion of their worship to honor the Earth and the resources it provides. Through belief and practice, varied religious traditions attribute a sacred and holy quality to the natural environment, recognizing humans' total dependence on nature's processes. In reverence and gratitude for the Earth, congregations and religious communities today gather together and mobilize to preserve the environment for future generations. Environmental awareness and religious reverence for nature go hand-in-hand — living simply, caring for the environment and leaving a legacy for the next generation accomplishes both goals.

This toolkit serves as a comprehensive resource for congregations who wish to actively respond to environmental issues that currently affect our families and communities. Information on the following five topics on which religious groups can focus their environmental education and action is provided: reducing waste, recycling, toxicity reduction, energy conservation and climate change, and protecting water resources.

*Note: The advice and ideas in this toolkit are designed for any faith-based community that seeks to address environmental problems facing society. The term “congregation” in this toolkit refers to any organized faith-based group.*



## This toolkit is organized to help you follow two principles for fostering sustainable behavior change:

### 1. **Build community.**

This toolkit assumes that you are encouraging others to learn about environmental issues and take actions that make a difference. It is easier and more fun for people to jump into something new when they see others getting involved and have an opportunity to share experiences and ideas.

### 2. **Make it easy.**

Give people the tools they need to take action today.

This toolkit will help you inspire, educate and actively engage others. We know people are more likely to stay committed to new practices if they have encouragement to try them for the first time. In addition to sharing lists of things to do, use the Activities in each chapter to help people take the first step.

Resources to learn more about motivating sustainable behavior change:

- **[www.cbsm.com](http://www.cbsm.com)**  
The community-based social marketing website has strategies, articles and case studies to foster sustainable behavior.
- **The Psychology of Sustainable Behavior.**  
A handbook introducing research-based tips from psychology to help in efforts to empower sustainability—[www.pca.state.mn.us](http://www.pca.state.mn.us), click on “Living Green,” then “Educators.”

## How to use the toolkit

### Familiarize yourself with the content

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The toolkit has five chapters organized by environmental topic:

- Reducing Waste
- Recycling
- Toxicity Reduction
- Energy Conservation and Climate Change
- Protecting Water Resources

Each chapter has essential background information, statistics and Hennepin County's free resources for that topic to help you get up-to-date on the issue. The Activities section of each chapter offers ideas for involving others in learning and taking action.

### Educate yourself

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In order to teach and organize others, you will need to be familiar with the important issues. Sources on the Internet offer overwhelming amounts of information and misinformation on environmental topics. This toolkit limits the background information to the most relevant and accurate for our region. Most of the information is contained in the Introduction to each of the chapters or in handouts provided in the Appendix. Lists of Essential Background Reading, Additional Resources and Websites are also provided in each chapter.

## Build a team

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- Work with others who are committed to helping the environment. Share the responsibility and the effort.
- Contact clergy and staff from your congregation and its board to enlist their support in forming a “Green Team” (or whatever name you choose). They may suggest the names of other congregation members who may want to get involved.
- Gather a small group of people (three to eight and it is helpful to have both a staff and a board liaison) to serve as a Green Team. Consider structuring your team as a group of volunteers who are part of an existing congregational committee (for example a Social Concerns Committee), or you might recruit representatives from several committees (e.g. buildings and grounds, worship/ritual, education, youth, outreach, etc.), or you might form a new type of group.
- Host an introductory event in which your congregation could bring in a guest speaker or show a movie on the environment and faith. Then, gather the names of people who attend and invite them to a brainstorming session for your campaign. If possible, invite a staff person from your congregation to be at the initial meeting to help move things forward more quickly.

# Gather needed resources

- Call us for help getting started. We can connect you with volunteers from other congregations who have done projects similar to yours and assist you in ordering handouts and setting up trainings or presentations.
- Hennepin County Environmental Services, Community POWER Networks Project for Congregations  
[www.hennepin.us/community\\_power](http://www.hennepin.us/community_power)  
612-348-9352  
[communitypower@co.hennepin.mn.us](mailto:communitypower@co.hennepin.mn.us)  
Project Managers: Ellie Jones and Angie Timmons  
Visit [www.hennepin.us/environmental\\_education](http://www.hennepin.us/environmental_education) for more about free handouts, literature, articles, toolkits, learning trunks, displays and tours available through the county. Each chapter in this toolkit lists additional resources.
- Alliance for Sustainability  
[www.afors.org](http://www.afors.org)  
Sean Gosiewski, 612-331-1099 ext. 1  
[sean@afors.org](mailto:sean@afors.org)
- Minnesota Interfaith Power & Light (formerly Congregations Caring for Creation)  
[www.mnipl.org](http://www.mnipl.org)  
612-226-8324
- Contact congregations that have completed waste reduction projects through Community POWER or view a description of their projects at [www.RethinkRecycling.com/grants](http://www.RethinkRecycling.com/grants)

# Free information and resources:

- Rethink Recycling  
[RethinkRecycling.com](http://RethinkRecycling.com)
- Community POWER  
[RethinkRecycling.com/grants](http://RethinkRecycling.com/grants)
- Minnesota Pollution Control Agency  
[www.pca.state.mn.us](http://www.pca.state.mn.us)
- Reduce.org  
[www.reduce.org](http://www.reduce.org)
- Sustainable Communities Network  
[www.nextstep.state.mn.us](http://www.nextstep.state.mn.us)
- Do It Green! Minnesota  
[www.doitgreen.org](http://www.doitgreen.org)
- WaterShed Partners  
[www.cleanwatermn.org](http://www.cleanwatermn.org)
- Minnesota Energy Challenge  
[www.mnenergychallenge.org](http://www.mnenergychallenge.org)

Refer to the Additional Faith Resources section on pg.53 for additional faith-based community support.

# Set your goals

- At your first planning meeting, invite people to share their ideas about your campaign and review the action ideas in this toolkit. Choose one or more of the topics to start with and brainstorm specific tasks needed to carry it out.
- Give options to participants. In any given activity or campaign, promote a variety of actions that may be small or big lifestyle changes leading toward the same goal.
- Invite each person to choose at least one task to do. E-mail the meeting minutes and assigned tasks to everyone.
- Meet regularly so team members can report on the steps they are taking and plan the next steps.

# Communicate effectively, positively and accurately

Build on existing structures, meetings, communication strategies, events and seasons to launch your program. Be consistent and persevere with your message. Create an accepting atmosphere around your efforts.

Behavior change can happen with small steps or large leaps, but all changes are important. Your program will be more successful if you focus on positive encouragement for anyone willing to join your efforts, no matter where they start or how quickly they move. Encourage people to choose one thing to change or do as a starting place. Use the Quick Facts and Ideas in each chapter of this toolkit to communicate accurate and inspiring messages.

## Build commitment

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The research on behavior change tells us to do the following when encouraging people to make changes in long-held beliefs and actions:

- **Offer incentives or prizes.** Attract attention to your project by offering a relevant give-away or prize for participation (e.g., a reusable shopping bag, bottle of non-toxic cleaner, compost bin, rain barrel, window insulation kit).
- **Use pledges or commitments.** Invite people to fill out and return a simple commitment form for one or more actions they commit to take (see Appendix for a sample pledge).
- **Use prompts.** Ask people to take home a reminder of the commitment or pledge they made, for example, something they can post on their refrigerator.
- **Create norms.** Use announcements, posters, buttons, lawn signs, etc. to let everyone know “this is how we do things.”
- **Publicly announce and celebrate how people are making changes.** Invite individuals who have taken one of the actions you are recommending to share their experience with others.
- **Use existing communication channels** such as announcements during services, the weekly bulletin, your newsletter, website or e-mail lists, posters or information tables with volunteers.
- **Use existing events.** These might include your coffee hour, education hour, children’s programs, garage sale, spring cleaning, seasonal events or Earth month/day.
- **Build upon existing small groups.** Yours might include youth groups, choirs, bible study, men’s clubs, senior clubs, etc.

## Go beyond the usual suspects

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As environmental issues gain attention, more people want to do something about it. Design your project to make doing something possible for everyone.

For those who are already committed, use the activities in this toolkit to inspire additional lifestyle changes. If people are not interested or involved, consider how to break down barriers to their involvement. Do they need to be inspired or educated about the issues? Do they need to hear how environmental changes also help save money? Do they need assurance from people they know and trust about the importance of the issues? Do language barriers or physical limitations stop some from getting involved? Work through existing networks and organizations that people already trust, get advice from opinion leaders, don’t make assumptions and get creative in your outreach.

## Track and celebrate your progress

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Keep your goals in mind. See the Evaluation Questions for Behavior Change Section (pg.65). Collect commitment forms from participating families and individuals. Follow up and support others in their efforts. Celebrate! Let members know the impact they are making together. Translate numbers into a tangible image. For example, show a before-and-after junk mail stack from a participant that has taken action to remove their names from junk mail lists or create a poster with the total pounds of junk mail per year your group could prevent.

## Sustain your efforts

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- Form an ongoing Green Team, Environmental Stewardship Team, or Creation Care team. Many congregations in Minnesota have formed teams to sustain their environmental efforts from year to year. Visit [www.webofcreation.org/GettingStarted/firststeps.htm](http://www.webofcreation.org/GettingStarted/firststeps.htm) for more information. In addition, many faith-based communities in Minnesota have formed affinity networks to support these efforts among congregations. To find contact information for denominational networks, see the “Faith Resources” Section (pg. 53).
- Inform your congregation’s leaders of your interest and commitment, and encourage their involvement.
- Develop an Action Plan for the congregation in areas such as worship, education, buildings and grounds, discipleship at home and work, and public ministry.
- Work with the appropriate committees and individuals to carry out the Action Plan.
- Promote your identity as an environmentally conscious and active congregation.
- Meet regularly to follow the Action Plan and to develop new projects.
- Consider a congregation project to benefit the larger community.
- Work to keep the life and activities of the Green Team alive.
- Consider drafting and adopting a green congregational mission statement.

# Calendar

## Seasonal Faith-based calendar

Faith-based communities can often increase the success of their environmental campaigns and projects by coordinating them with existing events and holidays. Use this calendar, which lists environmental, religious and cultural events and holidays, to develop ideas to implement seasonal projects or incorporate environmental messages into your community's regularly celebrated holidays and worship ceremonies. Also keep in mind that you can green your celebrations anytime of the year! (Please note that some of the religious holidays are not dependent on calendar seasons, but are still noted here as examples.)

SEASON	ENVIRONMENTAL HOLIDAYS/ IDEAS	RELIGIOUS HOLIDAYS
<b>Winter</b>	<ul style="list-style-type: none"> <li>• Green holidays — Low waste, used and recycled gifts, post holiday recycling/electronics</li> <li>• New Years: resolutions to reduce your eco-footprint</li> <li>• World Wetlands Day (February 22)</li> </ul>	<ul style="list-style-type: none"> <li>• Buddhist — New year Celebration (Mahayana)</li> <li>• Chinese New Year</li> <li>• Christian — Advent, Christmas: Green gifts</li> <li>• Islamic — Ashura, Muharram, (New Year's Day), Mawlid Al-Nabi (Muhammad's Birthday)</li> <li>• Jewish — Tu-Bishvat (Festival of Trees): Junk mail reduction, paper recycling, Chanuka</li> </ul>
<b>Spring</b>	<ul style="list-style-type: none"> <li>• Arbor Day (Last Friday in April)</li> <li>• Earth Day (April 22)</li> <li>• Environmental Pledges</li> <li>• National Environmental Education Week (April 11-17)</li> <li>• Spring Cleaning/Eco Cleaning (April/May)</li> <li>• Sustainable, water-smart landscaping</li> <li>• World Water Day (March 22)</li> </ul>	<ul style="list-style-type: none"> <li>• Buddhist — Visak (Buddha's Birthday), New Year celebration (Theravadin), Sangha Day</li> <li>• Christian — Lent: Reducing waste &amp; consumption; Easter, Confirmations</li> <li>• Hindu — Holi Mahashivaratri</li> <li>• Jewish — Pre-Passover: Non-toxic house cleaning, Bar Mitzvahs &amp; Bat Mitzvahs</li> </ul>
<b>Summer</b>	<ul style="list-style-type: none"> <li>• Bilk/walk to worship</li> <li>• Low-Waste picnics</li> <li>• National Night Out (August)</li> </ul>	<ul style="list-style-type: none"> <li>• Buddhist — Asalha Puja Day (Dhamma Day)</li> <li>• Islamic — Ramadan: Reduce waste; Lailat ul Qadr (Night of Power); CFL light bulb recycling, Eid ul-Fitr: re-gifting/used clothing</li> </ul>
<b>Fall</b>	<ul style="list-style-type: none"> <li>• America Recycles Day (November 15)</li> <li>• Back to School — Low-Waste lunches; recycled supplies</li> <li>• CFL light bulb campaign</li> <li>• Halloween Costume swap (October)</li> <li>• Hennepin County Choose to Reuse (October and November)</li> </ul>	<ul style="list-style-type: none"> <li>• Christian — St. Francis of Assisi Day: Pet blessing, animal related awareness campaigns; Dios de los Muertos (Day the Dead)</li> <li>• Hindu — Diwali</li> <li>• Jewish — Yom Kippur: reflection on simple living</li> <li>• Taoist/Chinese: Moon Festival</li> </ul>





# Activities

The following activities can be implemented to engage your congregation members in taking action to protect the environment. Details for the activities are found within each topic area.

## *Reducing waste – pg. 11*

CONGREGATION-WIDE	ALL AGES:	ADULT AND TEEN:	CHILDREN'S ACTIVITIES
<ul style="list-style-type: none"> <li>• Earth Day/Month</li> <li>• Rummage sale</li> <li>• Choose to Reuse</li> <li>• Junk mail reduction</li> <li>• Green your holidays</li> </ul>	<ul style="list-style-type: none"> <li>• Waste: What's the problem DVD</li> <li>• Create a reusable shopping bag</li> <li>• Make your own gift wrap or bags</li> <li>• Cookie/brownie mix gift containers</li> <li>• Books, toys, music, clothes or gift swap party</li> <li>• Eco drama</li> <li>• Cycle of Life</li> <li>• Reuse art projects</li> <li>• Make a junk mail tree</li> <li>• Congregational waste audit</li> <li>• Compare packaging and product costs</li> </ul>	<ul style="list-style-type: none"> <li>• Wise up about waste quiz</li> <li>• Buy used first</li> <li>• Build a compost bin</li> <li>• Eco-fashion show</li> <li>• Low-waste celebrations</li> <li>• Reduce junk mail</li> </ul>	<ul style="list-style-type: none"> <li>• Spaceship Earth</li> <li>• Sensory shaker bottle</li> <li>• Make new crayons from broken ones</li> <li>• Eco drama</li> </ul>

## Recycling – pg. 21

CONGREGATION-WIDE	ALL AGES:	ADULT AND TEEN:	CHILDREN'S ACTIVITIES
<ul style="list-style-type: none"> <li>Residential Recycling Campaign</li> <li>America Recycles Day, Nov. 15th</li> </ul>	<ul style="list-style-type: none"> <li>Sorting game</li> <li>What's in your trash can</li> <li>Make a trash art mural</li> </ul>	<ul style="list-style-type: none"> <li>Recycling and global warming</li> <li>Research teams: closing the recycling loop</li> </ul>	<ul style="list-style-type: none"> <li>Make a recycling monster</li> <li>Make a recycling chart</li> </ul>

## Toxicity reduction – pg. 27

CONGREGATION-WIDE	ALL AGES:	ADULT AND TEEN:	CHILDREN'S ACTIVITIES
<ul style="list-style-type: none"> <li>Spring Cleaning/Eco-cleaning</li> <li>HHW disposal</li> <li>Electronics recycling awareness campaign</li> </ul>	<ul style="list-style-type: none"> <li>Grow grass seeds</li> </ul>	<ul style="list-style-type: none"> <li>Label reading</li> <li>Make a non-toxic household cleaner</li> <li>Techno trash</li> <li>Video: Are you exposing your children to a toxic brew in your home?</li> </ul>	<ul style="list-style-type: none"> <li>Grow grass seeds</li> </ul>

## Energy conservation and change – pg. 35

CONGREGATION-WIDE	ALL AGES:	ADULT AND TEEN:	CHILDREN'S ACTIVITIES
<ul style="list-style-type: none"> <li>Take the MN energy challenge</li> <li>Bike to Worship Challenge</li> <li>Promote fluorescent bulbs/ Fundraising initiative</li> </ul>	<ul style="list-style-type: none"> <li>Back in my day</li> <li>Try a clothesline</li> <li>Local foods potluck</li> <li>Bike tune-up party</li> </ul>	<ul style="list-style-type: none"> <li>Conduct a home energy audit</li> <li>Conduct a lighting audit</li> <li>Map your route</li> <li>Learn about your utility bill</li> <li>Learn about electricity consumption</li> <li>Book/movie club</li> </ul>	<ul style="list-style-type: none"> <li>Weather collage</li> </ul>

## Protecting water resources – pg. 45

CONGREGATION-WIDE	ALL AGES:	ADULT AND TEEN:	CHILDREN'S ACTIVITIES
<ul style="list-style-type: none"> <li>Sustainable Landscaping Campaign</li> </ul>	<ul style="list-style-type: none"> <li>Where in the watershed?</li> <li>Plant a native garden</li> <li>Maintain your drain</li> <li>Mark the storm drains</li> <li>Organize a river clean up</li> <li>Bio bingo</li> <li>Measure the pH of water</li> <li>Rain gauge monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Volunteer to monitor water quality</li> <li>Build or buy a rain barrel</li> <li>Lawn care contest</li> </ul>	<ul style="list-style-type: none"> <li>Water Watch</li> </ul>



## Campaign goals

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### Participants will learn:

- About packaging waste and assess their typical purchasing practices.
- To reuse shopping bags or use cloth bags instead of disposable.
- About proper donation and disposal options for unwanted household items.
- How to give no-waste gifts and/or use alternatives to gift wrap.
- How to get their name off junk mail lists.

## Resources

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### **Essential background reading**

If you plan to teach others about this issue, please become familiar with the information provided in the Background section (see pgs. 8-9).

### **Web resources**

- [www.hennepin.us/reducewaste](http://www.hennepin.us/reducewaste)  
Tips on how to reduce waste, including how to reduce junk mail.
- [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse)  
An online list of more than 500 businesses and organizations that trade, repair, buy, resell or accept donations of unwanted household goods and clothing.
- [RethinkRecycling.com](http://RethinkRecycling.com)  
Your go-to guide for waste and recycling in the Twin Cities.
- [www.reduce.org](http://www.reduce.org)  
Minnesota Pollution Control Agency's website for waste reduction tips, including ideas on how to reduce junk mail.
- [www.twincitiesfreemarket.org](http://www.twincitiesfreemarket.org)  
A free online exchange for household items.

### **Handout print resources**

*Samples can be found in the Appendix*

*From Hennepin County*

- Donation Opportunities Guide
- Greening Your Celebrations
- Hold the Mail
- Too Much Packaging is a Waste
- How to Pack a No-Waste Lunch bookmark
- “Remember Your Bag” window cling
- Choose to Reuse Directory magnet
- **To order:**  
Order literature online for no charge at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform) or call 612-348-4168.

*From the Minnesota Pollution Control Agency*

- Reducing Waste at Home, Work or School (each are separate pieces)
- Reduce Trash When You Shop
- How to Compost Your Organic Waste
- **To order:**  
Request literature by e-mail: [resourcecenter.pca@state.mn.us](mailto:resourcecenter.pca@state.mn.us) or call 651-757-2120. PDF versions can also be downloaded at [www.reduce.org](http://www.reduce.org) under “educational toolbox.”

*Resources, cont'd on next page*



### Video

- Introductory video –  
Waste: What's the Problem  
Use this five minute video as an introduction to waste issues. It is available online at [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation) or call 612-348-4168 to have a DVD copy mailed to you.

### Learning trunks

- **Packaging Waste Reduction Learning Trunk**  
This trunk is a waste education tool for food and beverage packaging. It demonstrates the differences in cost and packaging waste when purchasing single-serve items versus those packaged in bulk or concentrate. It also addresses packaging recyclability.
- **Greening Your Celebrations Learning Trunk**  
This trunk helps illustrate ideas for giving more environmentally friendly gifts and hosting greener parties. This trunk illustrates many ideas from the Greening Your Celebrations brochure. The trunk includes examples of greener gift ideas, gift wrapping and party supplies.

Contact Hennepin County Environmental Services to check out a learning trunk at 612-348-4168 or visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).

### Tours

- **Hennepin County Drop-Off Facility**  
Touring the drop-off facility in Brooklyn Park provides an opportunity for residents and school groups to learn about how waste is managed by the county. Topics covered include waste reduction, recycling, and proper disposal of household hazardous waste. Age guidelines: The tour is recommended for 3rd grade and older. Children younger than 3rd grade may be asked to remain in the conference room with a chaperone during the second part of the tour.
- **Hennepin Energy Recovery Center: A Waste-to-Energy Facility**  
About 365,000 tons of waste is processed annually at HERC to generate enough electricity to power about 25,000 homes. This tour provides an overview of Hennepin County Environmental Services' programs, an explanation of how we manage waste in the county, and a description of how the waste-to-energy facility works. In addition, visitors tour the HERC tipping floor, the control room and the exterior of the facility. Age guidelines: 9th grade and older.

Call 612-348-4930 to schedule a tour. For more information about tours and guidelines, visit [www.hennepin.us](http://www.hennepin.us), search: tours.

## Background

Households in Minnesota are creating and throwing away more waste than ever. From junk mail to excess paint to food scraps – it takes a lot of time and money to deal with all of the garbage. You probably do not go to the store saying, “I think I’ll buy some garbage today.” But depending on which products you choose, that might be what you’re doing. By purchasing items that are overly packaged, disposable or of poor quality, your cash can soon end up as trash.

Let’s consider ways we can reduce waste at home and when we shop. This is good for the environment and can save money!

### Top ten easy things you can do to reduce waste

1. **Get your name off junk mail lists.** Go to [www.hennepin.us/reducewaste](http://www.hennepin.us/reducewaste) to find ways to get off junk mail lists. Add privacy statements to anything asking for your contact information.
2. **Pack a no-waste lunch.** Use a reusable lunch box or bag and reusable containers instead of plastic bags or disposable containers. Don’t forget a cloth napkin.
3. **Compost your kitchen scraps.** You can compost your fruit and vegetable scraps, coffee grounds and egg shells in a backyard compost bin.
4. **Bring a reusable mug with you.** Have a latte every day? Bring a reusable mug with you to the coffee shop. Buy water every day? Use a refillable bottle.



5. **Look for less packaging and avoid disposables.** At the grocery store, buy in bulk and bring bags or containers to fill. Choose products with the least packaging over individually wrapped items. You'll save money, too.
6. **Borrow, rent and shop used first.** Before you run to the store to buy a new item, think about how much you will use it. Could you borrow one from a friend or neighbor, rent it at a local store or purchase it used?
7. **Buy well, buy once.** Well-designed and constructed products that are repairable will last longer and usually save you money, even if they cost more initially.
8. **Sell, give away or donate usable clothing and household goods.** Donate reusable items to a local thrift store. Check the Choose to Reuse Directory at [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse) for options.
9. **Give green gifts.** Avoid over-packaged, resource consuming gifts that will need batteries or electricity. Consider making a gift, sharing an experience, providing a service or giving an environmentally friendly product.
10. **Educate yourself, friends and family about waste reduction and reuse.** For details on the ideas presented above, visit [RethinkRecycling.com](http://RethinkRecycling.com), [reduce.org](http://reduce.org) and [www.hennepin.us/reduce](http://www.hennepin.us/reduce) waste, and spread the word!

## Quick facts and bulletin ideas

The tips below can be printed in your bulletin, posted on your website, sent in e-mail messages, or used in other ways to gently remind your faith community of the importance of reducing waste.

- On average, each person in the Twin Cities metro area generates almost 7 pounds of waste each day. Together, that's enough to fill the Metrodome 11 times every year!
- Grocery shoppers use nearly 40 billion bags each year. Most are only used once and thrown away. Bring your own reusable bag instead.
- Use gift bags over and over, gift wrap is not recyclable.
- Save money by going online to the Twin Cities Free Market, [www.twincitiesfreemarket.org](http://www.twincitiesfreemarket.org), where you can give and get used items for free.
- Be a smart shopper – buy durables, not disposables. For example, buy reusable bottles instead of drink packs, then buy concentrated drinks and add water.
- Tired of all that expensive wrapping paper? Try these great ideas for gift wrapping alternatives: Scarves, handkerchiefs, bandannas, old posters and maps, or pages from a child's coloring book.
- Packaging makes up 30 percent of our trash. Purchase items that have less packaging.
- Each household receives more than 50 pounds of unwanted, unsolicited mail every year. Visit [www.hennepin.us/reducewaste](http://www.hennepin.us/reducewaste) for information on how to get your name off mailing lists.
- Food waste accounts for about 11 percent of the garbage we throw away. Much of this waste can be avoided or put to better use by composting.
- Every year, Hennepin County residents throw away 32 million pounds of reusable goods. That's enough stuff to fill shopping carts lined up from Minneapolis to Milwaukee. Find reuse opportunities at .



Easy things you can do to reduce waste: Pack a no-waste lunch.

## Congregation-wide campaigns

### Earth Day or Earth Month – April 22

Plan a kick-off event or information table on Earth Day or during Earth Month to let the congregation know about your environmental education or campaign plans for the year.

- Option 1—Host a table and share one to three easy action steps for members of your congregation to get started with waste reduction or reuse (e.g., distribute or sell reusable cloth shopping bags, pass out junk mail reduction information, etc.).
- Option 2—Organize an environmental fair, creation fair, resource fair or other event to celebrate Earth Day and promote ways that people can be better stewards of the Earth. Invite local community resources and services such as your city's recycling coordinator, Hennepin County Environmental Services, U of M Extension Master Gardeners (to demonstrate and discuss composting), thrift stores or vendors of eco-products. Offer children and teen activities.

#### Take home action and track participation

Ask members to sign a pledge to the Earth, take it home and post it in a visible location, such as on the refrigerator. Ask them to take three reuse, recycling or toxicity reduction actions in the next three months. Follow up with participants in two to three months, asking how their pledge is going and offering support.

#### Resources

See the *Pledge* template in the Appendix.

### Annual rummage sale

An annual congregational rummage sale is a great opportunity to educate people about properly donating or disposing of unwanted household items and about reuse shopping destinations in their area. At your rummage sale, you could:

- Offer resources and tips for donating or reusing unwanted items.
- Distribute a reuse directory to sale shoppers.
- Promote the Choose to Reuse Directory— [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse).
- Promote The Twin Cities Free Market— [www.twincitiesfreemarket.org](http://www.twincitiesfreemarket.org).

#### Take home action

- Encourage people who will be donating items to the sale to also properly dispose of items not accepted at the sale, such as household hazardous waste.
- Encourage people to shop at the rummage sale instead of purchasing new.
- Encourage people to shop for items at one or more local reuse stores.

#### Resources

- Hennepin County A to Z How-to-Get-Rid-of-it Guide – [www.hennepin.us](http://www.hennepin.us) search: a to z
- Hennepin County Choose to Reuse Directory and Donation Opportunities – [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse)
- Donation Opportunities Brochure
- Choose to Reuse magnet

#### Tracking participation

Track the number of items donated and sold, the number of people attending the sale, the number of information handouts distributed.

### Choose to Reuse Today – October through November

Help promote Hennepin County's Choose To Reuse program, held annually in October and November. Distribute Choose to Reuse coupon books. Request copies of the coupon book in August or September by calling 612-348-4787. Coupon books are also posted online at [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse).

#### Take home action

- Visit a participating store in October and November during Choose to Reuse Today.
- Choose to reuse items by repairing, trading, selling or donating them.
- Use reusable cloth shopping bags.

#### Resources

- Choose to Reuse coupon books – [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse)
- Handout: *Donation Opportunities Guide* (See Appendix)
- Choose To Reuse Directory and other reuse tips can be found at [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse)

#### Tracking participation

Number of coupon books and information distributed.

## Junk mail reduction campaign

Encourage members to reduce the amount of junk mail they receive by getting off junk mail lists.

### Take home action

- Ask members to take steps get off junk mail lists.

### Resources

- Handout: *Hold the Mail*  
(See Appendix)  
[www.hennepin.us/reducewaste](http://www.hennepin.us/reducewaste)

### Tracking participation

- Set up a computer with Internet access on the page: [www.dma-choice.org](http://www.dma-choice.org) and ask people to sign up to receive less junk mail. Count how many signed up.
- Ask that participating households (or a sample) weigh their weekly junk mail on a bathroom scale at the beginning of the education campaign and six months later to see how many pounds of paper waste was reduced.



## Green your holidays

From Thanksgiving to New Years Day, household waste increases by more than 25 percent. Additional food waste, packaging, wrapping paper and decorations add nearly one million tons a week to the nation's garbage piles. It's time to think about changing the way we celebrate during the holidays and throughout the year so that we can enjoy a cleaner environment. Use an information table or announcements to promote ways congregational members can green their holidays at home.

### Take home action

- Give one or more reused or recycled gift this year.
- Wrap your gifts in recycled or reusable gift wrap or cloth gift bags.
- Plan a low-waste holiday gathering.
- Make or decorate a cloth gift bag.

### Resources

- Handout: *Greening your Celebrations*
- Make your own gift wrap or bags Activity (pg. 17)
- Cookie/brownie mix gift containers Activity (pg. 17)

### Tracking participation

- Number of cloth gift bags decorated and distributed
- Follow up survey to ask people what actions they took over the holidays due to your education campaign on green holidays.



## Activities

### Congregational waste audit

Have the Green Team discuss ways that waste can be reduced in the operations of the congregation. Some congregations organize waste sorts to determine what is being thrown away to identify which actions will make the biggest difference. Some actions include:

- Using reusable mugs instead of disposable cups.
- Serving less packaged snacks.
- Using real dishware for congregation events instead of plastic, paper or Styrofoam (or ask members to bring their own dishware for events).
- Offering recycling for paper, cans and bottles.
- Installing a compost bin on-site to compost food scraps and serve as a demonstration for the congregation.
- Buy recycled paper.
- Brainstorm changes that could be made and commit to making one or more changes.
- See the Environmental Resources for Internal Operations Section (pg. 61) and the Special Event Ideas Section (pg. 57). Also refer to the Service Learning Section (pg. 59) for more information on making this a youth-led service project.

### Waste: What's the Problem? DVD

*Adults and children 8 and above*

- Produced by Hennepin County. Use the DVD with groups and at public events to quickly communicate waste reduction and what people can do to make a difference. The video is available at [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation) under "Environmental Education Resources" or call 612-348-4168 to have a copy mailed to you.

**Discussion questions after watching the DVD:** What did you learn that you didn't already know? Did anything surprise you? What actions suggested on the DVD will you consider taking?

### "Wise up About Waste" Quiz

*Adults and teens*

Have your group take the "Wise-Up About Waste!" quiz, which is similar to a magazine quiz. It is designed to teach people about waste issues and inform people how much they already know about waste reduction. Ask people to commit to one or more ways to reduce waste in the next week or month and practice those activities.

#### Suggested supplies:

- *Wise Up About Waste Quiz* (see Appendix)



### Compare packaging and product costs

*Adults and children 8 and older*

Compare waste and cost savings of overly packaged products. Set out food items that are individually packaged alongside the same items that could be purchased in larger quantities or bulk, e.g. goldfish crackers, raisins, chips, juice boxes/pouches, sodas, water. Compare price differences and the amount of packaging between the two. Discuss local grocery stores that provide the option of purchasing items in larger quantities or bulk. Refer to Resource Page – Packaging Reduction (see Appendix) for detailed instructions for this activity.

#### Suggested supplies:

- Examples of food and beverage items that are overly packaged and similar products with less packaging.
- List of prices.
- Calculators
- Handout: *Too Much Packaging is a Waste*
- Handout: *Reduce Trash When You Shop*
- Learning Trunk: *Packaging Waste Reduction Learning Trunk*  
This learning trunk is provided, on a loan basis, free of charge, as a waste education tool for food and beverage packaging. It demonstrates the differences in cost and packaging waste when purchasing single-serve items versus those packaged in bulk or concentrate. It also addresses packaging recyclability. Contact Hennepin County Environmental Services for more details at 612-348-4168 or visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).

### Discussion starters:

Was anyone already buying in bulk to save money or reduce waste? What were you already buying in bulk? Was anyone surprised by the difference in the prices? In addition to avoiding overly packaged products, what else can we do when shopping to reduce waste? (One answer: take reusable bags for carrying groceries home.) How could our group or organization reduce waste from packaging? Consider buying in bulk for your next event.



Create reusable shopping bags. This activity could also be used as a parent-child activity.



Make your own giftwrap or bags.

### Create reusable shopping bags

*All ages*

Pass out plain reusable bags as well as baskets of reusable art scraps and fabric markers to decorate the bags. As the group decorates their reusable bags, discuss the major influences on how we decide what to buy, and how can we change our purchasing habits to reduce waste.

#### Suggested supplies:

- Reusable bags made from canvas, cotton, recycled plastic, etc.
- Fabric markers, glue, glitter, and art scraps such as yarn, ribbon, fabric.
- “Remember your bags” window clings (available from Hennepin County and can be ordered online at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform))

### Discussion starters:

Does anyone already bring reusable bags when shopping? What motivated you to start bringing reusable bags? Where did you get the bags? If you are not bringing a bag with you when shopping, what is holding you back? How can people overcome those barriers?

Distribute or create a prompt for remembering your bags when shopping, such as a note for the car's dashboard that says “remember your bags!”

### Recycled holiday cards

*All ages*

Collect old holiday cards and make new cards from the old ones. The cards could be used, sold as a fundraiser or given to others.

#### Suggested supplies:

- Old holiday cards, scissors, glue, and new or created envelopes.

### Make your own gift wrap or bags

*Adults and children over 6*

Instead of spending money on new wrapping paper or gift bags, make your own. Friends and family members will enjoy receiving something made by hand.

- Decorate plain newsprint, brown craft paper, boxes, grocery bags, or old cardstock using stencils, collage, crayons or markers (these papers can be recycled later).
- Use old gift wrap, newspapers, fabric or wallpaper scraps to make a gift bag. Search “make your own gift bag” on the Internet for pattern ideas.
- Enlist the help of people who can sew and create reusable cloth gift bags. Encourage people to give gifts in the bags and reuse them each year. The bags could also be sold as a fundraiser. Find instructions at [www.wikihow.com/Sew-a-Cloth-Gift-Bag](http://www.wikihow.com/Sew-a-Cloth-Gift-Bag).

#### Suggested supplies:

- Supplies listed above, plus scissors, paint or glue if needed.

### Cookie/brownie mix gift containers

*Adults, teens and children over 3*

Using small, plastic coffee containers, have the group mix dry ingredients for cookies and brownies. Put mix into the coffee can. To make a great gift, decorate with a strip of recycled paper around can, hang a cookie cutter with ribbon from the can and include the recipe.

#### Suggested supplies:

- Dry ingredients for cookies or brownies, empty plastic jars or coffee cans, recycled paper, ribbon, cookie cutter for decoration, recipes printed on paper.

## Buy used first

*Adults and teens*

Each year, 32 million pounds of usable clothing and household goods — enough to fill shopping carts from Minneapolis to Milwaukee — are thrown away by Hennepin County residents. Share the *Donation Opportunities Guide*. If Internet access is available, demonstrate how to use Hennepin County's *Choose To Reuse Directory*, available at [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse) and the Twin Cities Free Market, at [www.twincitiesfreemarket.org](http://www.twincitiesfreemarket.org). Discuss how people have donated items they don't need and creative ways to buy or get used items.

### Suggested supplies:

- Handout: *Donation Opportunities Guide*
- Computer with Internet access (if possible)
- Each September, Choose to Reuse coupon books that have discounts at reuse stores in October and November are available free from Hennepin County. Call 612-348-4787 to request copies to distribute.

**Discussion starters:** In your experience, what are some of the best items to get secondhand? Why? In our community, what are some good sources for getting used items? Have you ever experimented and tried not to buy any new items (besides food, toiletries, etc.) for a week or month? What are some benefits of buying used items and donating old items? When your child outgrows or no longer plays with a toy/game/puzzle, what do you do with it? What is the difference between a “need” and a “want?”

## Build a compost bin

*Adults and children 8 and older*

Food that could be eaten or composted makes up 11 percent of our waste. Composting is a natural process where food scraps such as vegetable peels, fruit rinds and coffee grounds, plus yard wastes, are put in a pile or bin to decompose. As gardeners and farmers know, finished compost is a resource that improves soil. Home composting is simple and doesn't require special equipment or permits. Refer to the handout *How to Compost*.

Organize your group to build simple bins with reused materials or to purchase compost bins in bulk. Experienced composters can visit the backyards of others to recommend where to place the bin and how to effectively use it. Consider composting food waste at your next festival or event. Ask a Master Gardener to give presentations about composting.

### Suggested supplies:

- Handout: *How To Compost*
- Materials to build bins and tools



## Parties for children and teens

*Children, teens, adults*

Discuss ways to make your next birthday party a low-waste event (see Party Planning Tips in the *Greening Your Celebrations* handout or visit [RethinkRecycling.com/Events](http://RethinkRecycling.com/Events) for ideas and consider implementing activities from this Toolkit at the party).

## Books, toys, music, clothes or gift swap party

*Adults, teens, children 6 and older*

Everyone loves new things, even when they're used items. Organize a party where no one spends money and everyone leaves with gifts! Have adults or children look through their things and collect gently used items they no longer want (consider a theme, such as books, music, toys, kitchen items, clothes, shoes, jewelry, etc.) Bring the items to a gathering and exchange them (casually by laying everything around your space, or formally by swapping items or making a game of it). Talk about other ways to donate or get rid of things you don't use.

### Suggested supplies:

- Handout: *Donation Opportunities Guide* (see Appendix)
- Computer with Internet access to look at Hennepin County's *Choose to Reuse Directory* at [www.hennepin.us/choosetoreuse](http://www.hennepin.us/choosetoreuse) and The Twin Cities Free Market at [www.twincitiesfreemarket.org](http://www.twincitiesfreemarket.org).

## Eco fashion show

*Teens, children over 6, or adults*

Organize an Eco Fashion Show by showing off reused clothes that have been purchased or created, and/or clothes that are made from recycled materials (e.g. polar fleece). Award prizes. Create recycled fashions using the activities below.

- “Potato Chip Bracelet” activity in Appendix.
- “Jeans Bag” activity in Appendix.

## Eco drama

*Teens, children over 6, or adults*

Organize and perform an Eco Drama (play or skit) for your group about reusing, reducing, recycling or other environmental themes. Some groups center the performance around a plot of a popular movie or book.

## Reuse art projects

*All ages*

Have your group provide unwanted items that could be glued, cut or sewn into a new project. Allow youth to be creative or make a sample to get them started. Some ideas include: decorate an old picture frame, sew old jeans into a bag (see Appendix) or old clothes into new clothes, create a mural from items that can't be recycled. Remember, don't glue or tape items that can be recycled in ways that make them impossible to recycle later.

### Suggested supplies:

- Reusable art materials
- Art scraps such as yarn, ribbon
- Glue
- Markers
- Glitter
- Fabric
- Sewing machines (if needed)

Consider a visit to ArtStart's ArtScraps Store ([www.artstart.org](http://www.artstart.org)).

## Reduce junk mail

*Adults*

The average American household receives more than 500 pieces of advertising mail each year. Share the handout *Hold the Mail* and discuss what people have tried to do to reduce junk mail. Discuss how nearly all mail can be recycled (e.g., all paper can be recycled, and CDs that come in the mail can be recycled at drop-offs like Best Buy, etc.). Consider creating a challenge to see how much junk mail your group can reduce.

### Suggested supplies:

- Handout: *Hold the Mail* (see Appendix)

**Discussion starters:** About how much unwanted mail do you get every day or every week? What have you already done to reduce the amount of unwanted mail you receive? Why do our names and even our children's names end up on so many lists? (One answer: Direct marketing is cost effective for businesses).



## Make a junk mail tree

*Adults and children over 4*

Create a two- or three-dimensional tree out of junk mail (directions in the Appendix). To educate others to reduce junk mail, display the tree in a prominent location with information on how to reduce junk mail.

### Suggested supplies:

- Handout: *Hold the Mail* (see Appendix)
- Directions for building a junk mail tree (see Appendix)
- Junk mail from home (remove personal information)
- Display boards, markers, scissors, tape

## Sensory/shaker bottle

*Parents with infants/toddlers*

Create “sensory bottles” (that make noise or have movement) out of pop and/or bottled water containers. Use clean, empty bottles with lids. Have a variety of objects set out in bowls such as pompoms, feathers, Q-tips, dried beans, etc. Parents and children can put items into the bottle. Hot glue or duct tape lid on so children are prevented from opening the bottle and choking on the contents.

### Suggested supplies:

- Empty pop and/or bottled water containers
- Items to put in empty bottles (pompoms, feathers, Q-tips, dried beans)
- Hot glue or duct tape



## Make new crayons from broken ones

*Adults and children 3 and older*

Instead of throwing away broken crayons, parents and children can make new ones together. An oven is needed for this activity.

To make crayons:

- Peel all paper off broken crayons
- Preheat oven to 275 degrees F
- Spray large or small muffin tins with cooking spray
- Fill tins with unwrapped crayons (solid or mixed colors)
- Bake for 7 – 14 minutes
- While still warm, use a toothpick to swirl colors if desired
- Cool completely, then pop out of tins

### Suggested supplies:

- Broken crayons
- Oven
- Muffin tins
- Spray oil
- Toothpicks

## Cycle of Life

*All ages*

Help your group of adults or youth consider where raw materials for everyday products come from and go to after we're done using them. Prepare by collecting items that represent raw materials found in commonly used goods:

- Tree branches (paper, wood products)
- Rocks (metal products)
- Cotton balls (natural fabrics)
- Sand (glass)
- Grains/plants/water (food, medicines)
- Motor oil in a glass jar to represent petroleum (plastics, synthetics)

Create a list by asking the group to share items from one or more of these lists:

- Gifts they hope to receive for their next birthday/holiday
- Items in their garbage at home
- Anything they used or touched in the last hour/day

Display the raw materials. Ask participants to choose an item from the list you created and decide which raw materials went into that item. Discuss items that require few and many raw materials. Ask how your participants will handle the items when they are done using them (throw away, recycle, give away, store, etc.)

### Discussion starters:

Which raw materials do we rely on the most? Which raw materials have limited or unlimited supplies on Earth? Which products have a simple life cycle or a complex life cycle? Which raw materials are absorbed/returned back into the Earth and which aren't?

### Additional activity:

Draw, discuss, or perform the typical life cycle of your favorite products/goods.

## Spaceship Earth

*Youth K-8*

Explain to the group that they will be taking a trip to a far away space station and will not return to Earth for 50 years. They need to plan for their trip, deciding on everything they need to survive. Have individuals, small groups, or the large group design a spaceship and create lists of what they need to build it and what they need to take to survive. As a large group, discuss the difference between "needs" and "wants." Ask participants to read their lists and decide if items go on a "needs" or "wants" list.

### Discussion starters:

If you could only take five items, which would they be and why? Have humans made trips where they had to make these decisions? (Explorers, settlers, pioneers, immigrants, nomads, campers.) What did they take? Does the Earth seem like a ship floating in space? Do we have limited supplies of anything on Earth?

# Recycling

## Campaign goal

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### Participants will learn:

- Which items can be recycled and how to take action to recycle more items.
- How recycling saves natural resources and reduces climate change.
- Why purchasing items that are recyclable and made from recycled materials is beneficial.

## Resources

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### Essential background reading

- If you plan to teach others about this issue, please become familiar with the information provided in the Background section (see pg. 22).
- *Residential Curbside Recycling Guide* (see Appendix).

### Web resources

- [www.hennepin.us/recycling](http://www.hennepin.us/recycling)  
Links to city recycling contacts, recycling drop-off centers and tips for apartment and condominium recycling.
- [RethinkRecycling.com](http://RethinkRecycling.com)  
Your go-to guide for waste and recycling in the Twin Cities.
- [www.ci.minneapolis.mn.us/solid-waste](http://www.ci.minneapolis.mn.us/solid-waste)  
Information on the city's trash and recycling program, including how to sort recycling, how to get an extra bin and other recycling container options.
- [www.recycleminnesota.org](http://www.recycleminnesota.org)  
The Minnesota Pollution Control Agency's website for statewide recycling information.
- [www.recycleminnesota.org](http://www.recycleminnesota.org)  
The Recycling Association of Minnesota's website offers posters, educational DVDs and other resources for educators.
- [www.eurekarecycling.org/study\\_MultifamilyRecycling.cfm](http://www.eurekarecycling.org/study_MultifamilyRecycling.cfm)  
This guide developed by Eureka Recycling offers tips to encourage recycling in apartment buildings.

### Handout print resources

*Samples can be found in the Appendix*

Contact your city for specific recycling information. Contact information for city recycling programs can be found at [www.hennepin.us/recycling](http://www.hennepin.us/recycling) or [RethinkRecycling.com](http://RethinkRecycling.com).

*From Hennepin County*

- *Residential Curbside Recycling Guide* (also available in Spanish)
- Recycling chart activity for kids
- **To order:**  
Order literature online at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform) or call 612-348-4168.

*Resources, cont'd on the next page*

### Learning trunks

- **Reduce, Reuse, Recycle Learning Trunk**

The learning trunk includes examples of items that can be recycled, samples showing the recycling process, activity ideas, books and DVDs for all ages.

- **Recycled Products Learning Trunk**

This trunk demonstrates the importance of completing the loop by purchasing goods made from recycled materials. It includes example products, activity guides, books, posters, DVDs and videos.

- **Recycling Sorting Activity**

The activity includes materials that can and cannot be recycled.

Contact Hennepin County Environmental Services to check out a learning trunk at 612-348-4168 or visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).



## Background

Residents and businesses in the Twin Cities area recycle more than 1.3 million tons of waste each year. That's about 43 percent of the garbage we generate. Curbside recycling is simple and convenient and is something the entire family can help with.

Your recycling duties are not over when you place your bin at the curb. To close the recycling loop, recyclables must be made into new products. To make recycling work, people must purchase items made from recycled materials, such as notebooks, copy paper, trash bags and door mats. Look on a product's label for the words "this item is made from recycled materials," "made from post-consumer content" or "made from reclaimed materials."

### Recycling in your community

Each city or town creates its own rules and processes for recycling. Materials collected, sorting requirements and other requirements can all vary. The information contained in this chapter is general and likely accurate in your community, but there are variations. To find links to the recycling rules in your community visit [www.hennepin.us/recycling](http://www.hennepin.us/recycling) or go to [RethinkRecycling.com](http://RethinkRecycling.com)

## Dos and don'ts of recycling

- **Recycle the old recycling rules.** Curbside recycling programs have changed over the years. You can now recycle more items and your collection method may have changed. Take a few minutes to reacquaint yourself with your community's recycling program. Visit [www.hennepin.us/recycling](http://www.hennepin.us/recycling) or go to [RethinkRecycling.com](http://RethinkRecycling.com) for links to your community's recycling information.
- **Do recycle more paper:** for example mail, office and school papers, magazines, newspaper inserts, phone books, cereal boxes and shoe boxes. Don't forget your plastic bottles, glass bottles and jars, and metal cans.
- **Don't recycle** yogurt containers, margarine tubs, styrofoam, food-soiled paper, wax paper, glassware and ceramics.
- **Think about where you generate recycling at home—it's not just in the kitchen. Place recycling containers where you read** your mail, pay your bills and use the computer.
- **Recycle when you are on the go.** Look for recycling bins at work, school, shopping centers, gas stations and parks. If you don't see recycling, let managers know that recycling is important to you.
- **Close the loop, buy recycled.** All the paper, plastic, metals and glass that you've been recycling are made into all sorts of everyday products and packages. Items labeled "post-consumer content" are made from the materials you recycle at home.



**Items commonly made out of recycled materials (and what they are made from):**

- Glass food jars, including baby food jars (glass)
- Pop cans (aluminum)
- Metal food cans (steel)
- Rubber welcome mats (tire rubber)
- Newspaper (mixed paper)
- Plastic lumber (plastic bottles, plastic bags)
- Checks (office paper)
- Copy paper (office paper)
- Greeting cards - Shoebox at Hallmark, Recycled Paper Greetings Inc. available at Target and other stores (office paper)
- Carpet (plastic bottles)
- Fleece (plastic bottles)
- Cardboard boxes (cardboard, boxboard)



All of these paper materials are recyclable.

**Recycling frequently asked questions**

• **Which boxes are recyclable?**

If a box is kept in the cupboard, it is recyclable. If it goes in the fridge, freezer or microwave, it is not.

The wax coating that makes refrigerator, freezer and microwavable boxes water-resistant is a problem in the recycling process. The glossy coating used on toothpaste, cereal, pasta and some cardboard boxes does not affect the recycling process.

• **Which plastics are recyclable curbside?**

Remember, plastic bottles and jugs are recyclable.



The symbol on the bottom of a plastic container does not mean it is recyclable – it only tells you what type of plastic the container is made of. In Hennepin County, plastic bottles and jugs are collected for recycling. However, plastic tubs and cups, such as yogurt cups, are not recyclable. These plastics contain different additives than bottles, and there is little demand for recycling these materials in our area. In the future, these materials may be added to recycling programs.

• **How should I prepare my recycling?**

Prepare recycling by:

- Remove all caps, lids and pumps
- Give containers a quick rinse
- It's OK to leave labels on
- Do not place recyclables in a plastic bag

**Quick facts and bulletin ideas**

The information below can be printed in your bulletin, posted on your website, sent in e-mail messages or used in other ways to remind your faith community of the importance of recycling.

- Recycling paper doesn't just save trees! Production of recycled paper uses 80 percent less water, 65 percent less energy and produces 95 percent less air pollution than paper production using raw materials.
- A newspaper is recycled and back in circulation in less than four weeks.
- Nationally, only one out of every five plastic bottles is recycled.
- Recycling one aluminum can saves enough energy to power a TV or computer for three hours.
- Recycling one glass jar saves enough electricity to light a conventional 60-watt bulb for four hours or an 11-watt compact fluorescent bulb for 20 hours.
- It takes 95 percent less energy to make aluminum from recycled material than it does to make it from scratch. Making new products from recycled steel results in a 60 percent energy savings, using recycled plastic results in a 70 percent energy savings, and using recycled glass results in a 40 percent energy savings.
- Five plastic soda bottles yield enough fiber for one extra large T-shirt, one square foot of carpet or enough fiber fill for one ski jacket.
- Recycling reduces greenhouse gases. In one year, recycling in Minnesota reduces emissions equal to taking 1.2 million cars off the road.



## Congregation-wide campaigns

### Residential recycling campaign

Promote household recycling practices. Encourage families to start recycling. For those that already do recycle, share detailed information on what can be recycled, including paper, cans and bottles.

#### Take home action

- Start a recycling program in your congregation as a model, then ask members to start or improve their recycling program at home.
- Post a recycling chart at home (see *Make a recycling chart on page 25*).

#### Resources

- Handout: *Residential Curbside Recycling Guide* (See Appendix )
- *Make a recycling chart* (pg. 25)
- Solid Waste Management Coordinating Board's "Rethink Recycling" Toolkit: [www.swmcb.org](http://www.swmcb.org) with educational tools on recycling including sample newsletter articles, ads and images.

#### Tracking participation

- Have families participate in a survey asking if they have changed their recycling practices at home due to your educational outreach. Ask them details on what types of items they used to recycle (if anything) and what they recycle now.
- Set up a friendly contest to see which family/household can create the least garbage by recycling more. Measure using a bathroom scale or measuring by the bag (if families use the same size bag i.e. paper grocery bags, 10-gallon plastic bags, etc.).

## America Recycles Day – November 15

*All ages*

Celebrate America Recycles Day by promoting household recycling and goods made from recycled materials. Display samples of clothes and goods made from recycled materials.

#### Take home action

- Hand out or display the list of items commonly made from recycled materials (see pg. 23). Ask families to shop for these items the next time they need them.

#### Resources:

- America Recycles Day Toolkit: [www.recycleminnesota.org/html/ProAmRec.htm](http://www.recycleminnesota.org/html/ProAmRec.htm) for information on planning events on America Recycles Day
- Handout: *Residential Curbside Recycling Guide*
- Hennepin County Learning Trunks – Reduce, Reuse, Recycle Learning Trunk and the Recycled Products Learning Trunk
- Recycling images and articles are available for download at [www.swmcb.org/current-campaigns](http://www.swmcb.org/current-campaigns) and click on Reinvigorating Residential Recycling Campaign

#### Tracking participation

- Ask families to circle items on the list of recycled goods that they have purchased since your campaign began.

## Activities

### Sorting game

*All ages*

Each community determines how recyclables need to be sorted (or not sorted) to be put out at the curb. Check [RethinkRecycling.com](http://RethinkRecycling.com) or call your city to learn how to sort materials for recycling in your community. Use this activity to help participants practice sorting. Set up five boxes — one for paper, one for cans, one for plastic bottles, one for glass bottles and jars, and one for items that cannot be recycled (note that you may want to exclude glass bottles if small children are participating). Sort cans, plastics, paper and trash (non-recyclables) into labeled bins. Offer prizes made from recycled materials.

#### Suggested supplies:

- Items that can be recycled, including office paper, newspaper, cardboard, plastic bottles, aluminum cans, glass bottles.
- Trash (items that cannot be recycled): plastic candy wrappers, broken toys, styrofoam cups, etc.
- Handout: *Residential Curbside Recycling Guide* (see Appendix)

#### Discussion starter:

As your group is doing the sorting activity, ask "Why is it important to sort these things?" Let participants answer, but be sure to explain the recycling process—a truck takes recycling away to a facility where the materials are made into something new. You could have examples of items made with recycled content to show them (see list in the Introduction to this chapter).

## Make a recycling chart

*All ages*

Parents and children cut out photos from magazines or draw pictures of the items that can be recycled in their community. Paste the pictures onto a blank piece of paper or the blank *Recycling Chart* in the Appendix. Post it in the kitchen or near the garbage/recycling area.

### Suggested supplies:

- Copies of blank *Recycling Chart* (see Appendix) or blank paper
- Magazines with kitchen/housewares photos
- Glue, crayons, scissors
- Handout: *Residential Curbside Recycling Guide*

## What's in your trash can?

*All ages*

Pass out the *Trash Checklist* and ask participants to check off what they threw away in the past week. Tally a group score. Identify the most common things that the group threw out. Form smaller groups and give each one a bag of "typical" household trash. Ask the groups to discuss how the items could be recycled, reused, avoided or composted. Share creative ideas with the large group.

### Suggested supplies:

- Copies of the *Trash Checklist* (See Appendix)
- Bags containing typical household trash items

### Discussion starters:

Which items could have been recycled, reused, avoided or composted? If we go through the *Trash Checklist* again next week, what would you like to avoid having in your trash?

## Make a recycling "monster"

*All ages*

Using two paper grocery bags, adults and children can create a recycling "monster" (or other type of animal) that is hungry for everything you recycle – cans, paper, milk jugs and more! The monster can serve as a receptacle in the home for recycling.

### To make:

1. Use two same-size brown grocery bags. Cut a large oval in the bottom of one of bags. Slide it upside-down over the other bag, so the oval is on top. The oval will be your monster's mouth.
2. Decorate the bag with fabric scraps, crayons or other materials to make the monster's eyes, nose, hair, teeth, etc.
3. When the monster is full, pull off the decorated bag, put the recycling out for curbside collection, and replace the inside bag.
4. Adding a pipe cleaner handle will make removing the top bag easier.
5. You can make more than one monster if your community requires you to sort your recycling.

### Suggested supplies:

- Two paper bags (grocery bag or similar)
- Pipe cleaners (for handles)
- Fabric scraps, old greeting cards, bottle tops (or any other materials to decorate your monster)
- Glue
- Scissors



## Recycling and global warming

*Adults, teens, and children 10 and older*

Share or present the one-page handout referenced below on how recycling helps mitigate global warming. Use the discussion starters below with the group.

### Suggested supplies:

- Article 9: "Recycling Mitigates Global Warming" from the SWMCB Reinvigorating Residential Recycling Toolkit (see Appendix or [www.swmcb.org/current-campaigns](http://www.swmcb.org/current-campaigns)).

### Discussion starters:

Were you already aware of the different ways recycling can help prevent global warming? Did anything about the article surprise you? Using the examples from the article about the different ways recycling helps prevent global warming, what other things can be done, in addition to recycling, that will have similar outcomes for the natural world?

## Research teams: closing the recycling loop

*Adults and teens*

Divide people into research teams for each type of recyclable item: paper, plastic, cans and glass. Each team researches what happens in the recycling process (from picking items up at the curb to making something new from recycled materials) and presents to the other teams. You could display examples of items made with recycled content. Hand out information about recycling in your community (information is available at *RethinkRecycling.com*) and share a list of items made from recycled materials (see pg. 23).

### **Suggested resources:**

- Paper Article #4 and Containers Article #3: Where Does it Go? from the Reinvigorating Residential Recycling Toolkit(see Appendix or download online at [www.swmcb.org/current-campaigns](http://www.swmcb.org/current-campaigns)).
- Recycling Association of Minnesota's Educational Resources, [www.recycleminnesota.org/html/ReEd.htm](http://www.recycleminnesota.org/html/ReEd.htm)
- Hennepin County Learning Trunks – Reduce, Reuse, Recycle Learning Trunk and the Recycled Products Learning Trunk have examples of what products look like during the recycling process (see pg. 22 for a description).

## Make a trash art mural

*All ages*

Using colorful, clean trash items that cannot be recycled, make a wall mural together as a group (or individual art projects). Consider a theme like a rainbow, a garden, undersea landscape, etc. Discuss the many small packaging items we use and discard every day. Ask participants for their creative ideas to avoid these items in the future.

### **Suggested supplies:**

- Butcher paper or newsprint, glue or tape, scissors.
- Clean, colorful items that cannot be recycled, for example, food/snack wrappers, plastic straws, used wrapping paper. See the *Residential Curbside Recycling Guide* for a full list. Planning ahead, share the Guide in advance and ask participants to bring non-recyclable items from home.



# Toxicity Reduction

## Campaign goals

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Participants will:

- Learn to identify household hazardous products and describe where they can be found in the home.
- Be able to read and analyze product labels for safe use.
- Identify ways to reduce toxic chemicals in the home, including how to clean their homes using less hazardous products.

## Resources

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### ***Essential background reading***

- The toxicity reduction *Background* section (see pgs. 28-31)
- Hennepin County handouts (see Appendix)
  - Household Hazardous Waste and Problem Materials Guide (also available in Spanish)
  - Drop-off Facilities brochure
  - Non-Toxic Cleaning Recipes

### ***Additional background information*** (see Appendix)

- Minnesota Pollution Control Agency's
  - Reduce the Need for Pesticides and Herbicides
  - How to Grow a Healthy, No-Waste Lawn and Garden

### ***Web resources***

- [www.hennepin.us/dropoffs](http://www.hennepin.us/dropoffs)  
Hennepin County operates two drop-off facilities for residents to properly dispose of household hazardous wastes. The Brooklyn Park and Bloomington facilities are open year-round. For more information, call 612-348-3777.
- [www.hennepin.us](http://www.hennepin.us), search: a to z guide  
Hennepin County's A to Z How-To-Get-Rid-of-It Guide is an online resource with information on how to dispose of more than 400 common household items.
- [RethinkRecycling.com](http://RethinkRecycling.com)  
Your go-to guide for waste and recycling in the Twin Cities.
- [reduce.org](http://reduce.org)  
Tips on how to reduce toxicity at home.

*Resources, cont'd on the next page*



### **Handout print resources**

*Samples can be found in the Appendix*

*From Hennepin County*

- *How to Identify Hazardous Product—Read the label* factsheet
- *Ways to Reduce Harmful Chemicals in Your Home* factsheet
- *Household Hazardous Waste and Problem Materials Guide* (also available in Spanish)
- *Fluorescent Light Bulbs: Buy them, Use them, Recycle them*
- *Mercury and Mercury-Containing Products*
- *Drop-Off Facilities brochure*
- *Earth-Friendly Home Landscaping Guide*
- *Non-Toxic Cleaning Recipes*
- **To order:**  
Order literature online at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform) or call 612-348-4168.

*From the Minnesota Pollution Control Agency*

- *Reduce the Need for Pesticides and Herbicides*
- *How to Grow a Healthy, No-Waste Lawn and Garden*
- **To order:** Request literature by e-mail at [resourcecenter.pca@state.mn.us](mailto:resourcecenter.pca@state.mn.us) or call 651-757-2120. PDF versions can also be downloaded at [www.pca.state.mn.us](http://www.pca.state.mn.us), search: learning resource factsheets.

### **Learning trunks**

- **Household Hazardous Waste Learning Trunk**

The Household Hazardous Waste Learning Trunk helps educators explain the importance of proper use, storage, disposal and safety information of household hazardous products.

The trunk includes sample products for label reading activity, photos of similar-looking hazardous and non-hazardous products to illustrate the importance of proper storage, and activities, lesson plans and project ideas.

Learn more about the learning trunk at [www.hennepin.us/environmental\\_education](http://www.hennepin.us/environmental_education). To reserve a trunk, call 612-348-4168.

### **Video**

- ***Are You Exposing your Children to a Toxic Brew?***

This video explores the toxicity of common household products. It is a good introduction to the topic of toxicity reduction and the importance of label reading.

This video is available in VHS or DVD format. The DVD has subtitles in Spanish or French. This video can be checked out by calling Hennepin County at 612-348-4168.

### **Tour**

- **Hennepin County Drop-Off Facility**

Touring the drop-off facility in Brooklyn Park provides an opportunity for residents and school groups to learn about how waste is managed by the county. Topics covered include waste reduction, recycling, and proper disposal of household hazardous waste. Age guidelines: The tour is recommended for 3rd grade and older. Children younger than 3rd grade may be asked to remain in the conference room with a chaperone during the second part of the tour. Call 612-348-4930 to schedule a tour. For more information about tours and guidelines, visit [www.hennepin.us](http://www.hennepin.us), search: tours

## **Background**

What are household hazardous products and where do you find them? How do chemicals enter your body? How do we identify hazardous products and what can we do to decrease toxic chemicals in our homes? Let's look at how to create safer home environments for our children and ourselves.

From the water we drink to the foods we eat to how we maintain our yards and clean our homes, we are exposed to chemicals in many ways. According to the U.S. Environmental Protection Agency, only a small fraction of the more than 75,000 registered chemicals have gone through complete testing for human health concerns. Some chemicals have immediate toxic effects. Others are toxic to our bodies only after repeated, long-term exposure.


Children are especially susceptible to the negative effects of chemicals. Pound for pound, children breathe more air, drink more water and eat more food than adults. When they play, they crawl and put things in their mouths. Even beyond the infant and toddler years, children are exposed to chemicals through ingestion, absorption (through the skin), contact and inhalation. As a result, children have an increased chance of exposure to pollutants. Because children's bodies are still developing, they may process these pollutants differently from adults.

*The information below is also found in the Appendix, in a format suitable for copying and handing out.*

A hazardous product has one or more of these words (often called signal words) on the label: Caution, Warning, Danger or Poison. These products can be found in the kitchen, laundry room, basement, garage or storage area.

Examples of household hazardous wastes include acids, aerosol cans with product remaining, antifreeze, drain cleaner, driveway sealer, items that contain mercury (e.g., thermometers, thermostats and fluorescent bulbs), motor oil, oil filters, oven cleaner, paint and stains, paint thinner, paint stripper, pesticides, pool chemicals and wood preservatives.

Look for key words on labels and choose the least hazardous product.

	<i>Less toxic</i>	Caution	Mild/moderate
		Warning	Moderate hazard
		Danger	Extremely flammable, corrosive or highly toxic
	<i>More toxic</i>	Poison	Highly toxic – <i>harmful or fatal if swallowed</i>

Signal words explain how toxic or hazardous a product is. Signal words are required by law on the labels of hazardous products.

- **Caution** – mildly to moderately hazardous (not fatal if swallowed but the product may irritate the skin or make a person sick)
- **Warning** – moderately hazardous
- **Danger** – extremely hazardous, i.e., extremely flammable, corrosive or highly toxic
- **Poison** – highly toxic (harmful or fatal if swallowed)

Characteristic words indicate the type of hazard posed by a product and are usually found after the signal word on the label. The following terms are characteristic words:

- **Corrosive:** The words “corrosive,” “acid,” “caustic,” “lye,” “alkaline,” or “causes burns to the skin” mean that the product can burn the skin or eyes. This material can also eat away other materials with which it comes into contact.
- **Toxic:** The words “poison” or “harmful if swallowed” mean that the product is poisonous and can be harmful or fatal if swallowed, inhaled or absorbed through the skin.
- **Reactive:** The words “do not mix with...” or “store separately from other products” mean that the product may react violently or produce toxic gas if combined with other substances. Examples include certain types of drain cleaners, oven cleaners or other products containing bleach, ammonia or lye.

Household hazardous products can be harmful not only to the environment but also to humans and animals. The ways that chemicals enter the body are called exposure pathways. The four exposure pathways are:

- ## How to safely store products

Storing products properly can help prevent accidents and extend a product's life.

- ## How to properly dispose of household hazardous waste

Improper disposal of household hazardous waste, such as throwing it in the trash or pouring it down the drain, could harm your family or trash hauler. Improper disposal may also contaminate the air, water and soil.

To address the household hazardous waste disposal issue, counties operate household hazardous waste collection sites where residents can safely dispose of household hazardous waste, often free of charge.

Visit [RethinkRecycling.com](http://RethinkRecycling.com) to find disposal options and more information on county household hazardous waste drop-off sites. Hennepin County offers two drop-off facilities for residents to properly dispose of household hazardous wastes for no charge. These facilities, located in Brooklyn Park and Bloomington, are open year-round. For more information, visit [www.hennepin.us/dropoffs](http://www.hennepin.us/dropoffs) or call 612-348-3777.



## Ways to reduce harmful chemicals in your home

You can make simple changes to reduce exposure to toxic chemicals at home by considering the following options.

- **If you have household chemicals that you don't want or need, dispose of them.** Give usable products to a friend or neighbor who will use them up. If products are unusable or you don't know someone who can use them, take them to your county's household hazardous waste drop-off site to be disposed of properly. Visit [RethinkRecycling.com](http://RethinkRecycling.com) for information on acceptable wastes and collection sites.
- **If you have a mercury thermometer in your home, take it to your county's household hazardous waste drop-off site.** The drop-off sites accept fever and kitchen thermometers that contain mercury. If you need to use a thermometer, use a mercury-free alternative such as an alcohol or digital thermometer.
- **Remove your shoes at the entrance to your home.** Your shoes can track in pollutants from outside. Keep a floor mat at the entrance for visitors.
- **Use a fabric shower curtain instead of a vinyl one.** Vinyl shower curtains or liners release odors and chemical gases into the air. Use a shower curtain made of canvas, hemp or polyester instead.
- **Avoid chemical air fresheners.** To freshen the air, open the windows or simmer a mixture of cloves and cinnamon in water.
- **Avoid laundry and dishwasher products that contain chlorine or chlorine bleach (sodium hypochlorite).** If whitening is needed, use a non-chlorine bleach with oxygen or hydrogen peroxide.

- **Avoid the chemicals used in dry cleaning.** Clothes that have been dry cleaned release perchlorethylene (perc) gas, a chemical that is suspected to cause cancer. Air out clothes that have been dry cleaned before bringing them into your home. Better yet, buy clothes that don't need dry cleaning or have clothes cleaned by an alternative cleaning process (green cleaning) that does not result in the release of perc.
- **Use pump spray products instead of aerosols.** Aerosols put unnecessary chemicals in indoor air when you use them in the house, and the mist produced by a pressurized aerosol can is finer and more easily inhaled than the mist from a pump spray.
- **Buy fewer household chemicals.** Use multipurpose cleaners to avoid buying many specialty cleaners. Use single-ingredient products (baking soda, white vinegar, lemon juice, salt) that serve several functions. Make your own cleaners (see *Non-toxic Cleaning Recipes*). Sometimes muscle can replace chemicals. Try to dislodge a clog in a drain with a mechanical "snake." Scrub sink stains with an abrasive sponge. Use a dandelion digger instead of weed killer.

Visit [RethinkRecycling.com](http://RethinkRecycling.com) to find disposal options and more information on county household hazardous waste drop-off sites.



Remove your shoes at the entrance to your home.

## Quick facts and bulletin ideas

The information below can be printed in your bulletin, posted on your website, sent in e-mail messages, or used in other ways to gently remind your faith community of the importance of toxicity reduction.

- Learn the signal words that are used on labels to explain how toxic or hazardous a product is. Look for products labeled **Caution** and avoid products labeled **Danger** or **Poison**.
- Mercury is a potent nervous system toxin which also affects reproduction and development. Because mercury does not degrade, it accumulates in the environment, reaching dangerous levels in fish that result in fish consumption advisories.
- One gallon of improperly disposed of motor oil can contaminate one million gallons of water.
- According to the U.S. Environmental Protection Agency, only a small fraction of the more than 75,000 registered chemicals have gone through complete testing for human health concerns.
- Always follow product label directions for use. Using more is not always better, e.g. over fertilizing.
- Never mix different products together unless you are making a known non-toxic cleaning product. Mixing bleach and ammonia creates a toxic gas that can make you very sick.
- Q. What do I do with old televisions, computers, etc.?  
A. Sell them, fix them, or recycle them. See [RethinkRecycling.com](http://RethinkRecycling.com) for options.



## Congregation-wide campaigns

### Spring cleaning/ Eco-cleaning

Offer information about reducing toxicity in the home and non-toxic cleaning options.

#### Take home actions

- Identify hazardous products
- Make and use non-toxic cleaner
- Reduce harmful chemicals in the home

#### Resources

- Handouts: *How to Identify Hazardous Products, Ways to Reduce Harmful Chemicals in the Home, and Non-toxic Cleaning Recipes* (See Appendix)
- *Label Reading Activity* (pg. 33)
- *Make a Non-Toxic Household Cleaner Activity* (pg. 33)

#### Tracking participation

- Count the number of cleaners made/distributed.
- Track how many print materials were distributed.



Read the label.

## Household hazardous waste disposal

Help people locate Hennepin County drop-off facilities and distribute a list of what is accepted at the facilities. If you have elderly or immobile family members, help them identify and properly dispose of their household hazardous waste.

*Note: Many communities wish to organize hazardous waste collection events; however, safety and regulations prevent this. Please encourage participants to use county drop-off facilities or collection events.*

#### Take home action

- Properly dispose of unwanted household hazardous waste.

#### Resources

- Handout: *Hennepin County Drop-off Facilities* brochure
- For facilities outside Hennepin County, visit [RethinkRecycling.com](http://RethinkRecycling.com)

#### Tracking participation

- Track the number of handouts distributed.
- Follow up with a survey asking if they visited the facility and what and how many products were dropped off.



Household hazardous waste disposal.

## Electronics recycling awareness campaign

Most electronics contain toxic metals such as lead, mercury and cadmium. When any of these contaminants get into our rivers, streams or lakes, they harm our health and damage the environment. Help your members find easy and convenient recycling options.

Hennepin County takes electronics free of charge, year-round, from residents at drop-off facilities in Brooklyn Park and Bloomington. Set up a display of electronics, such as TVs, computers, cell phones, game consoles, radios, camcorders and media players, to show how many different gadgets members may have at home to recycle.

#### Take home action

- Recycle electronics

#### Resources

- Handout: *Hennepin County Drop-off Facilities* brochure
- Websites: [www.hennepin.us/dropoffs](http://www.hennepin.us/dropoffs). For additional recycling opportunities, visit [RethinkRecycling.com](http://RethinkRecycling.com).
- The Solid Waste Management Coordinating Board E-waste educational tool kit: sample articles, images and ads to promote e-waste recycling. [www.swmcb.org/current-campaigns/electronics-recycling-campaign](http://www.swmcb.org/current-campaigns/electronics-recycling-campaign).

#### Track participation

- Track the number of handouts distributed.
- Follow up with a survey asking how many electronics they recycled due to the campaign.

## Activities

### Label reading

*Adults and teens*

Have participants complete the *Chemicals in the Home* quiz (see Appendix). Ask participants to list household products they use in the kitchen, bathroom, on floors, woodwork and windows, or in the yard, garden, etc. If possible, ask for the list in advance and have examples from the list available. Write the list on a board. Share household hazardous waste facts from this chapter, then complete the *Label Reading Activity*.

1. Have participants divide into pairs and give each pair two examples of household/yard/garden products.
2. Distribute and review a copy of the *How to Identify Hazardous Products – Read the Label* factsheet.
3. Give each pair a copy of the *Label Reading Activity*. Have them look at the labels and fill in the sheet. Have pairs share the information they found on one product with large group.
4. Pass out the *Ways to Reduce Harmful Chemicals in Your Home* factsheet and discuss what people can do.
5. Get the group back together to brainstorm ideas

### Suggested supplies:

- Common household products that participants identify that they use, e.g., window cleaner, disinfectant wipes, all purpose cleaner, bleach, paint, lawn and garden items, etc.
- *Chemicals in the Home* quiz, *Label Reading Activity* and a *Home Hazardous Products Survey* (see Appendix)
- Handouts :
  - *How to Identify Hazardous Products*
  - *Read the Label* factsheet
  - *Ways to Reduce Harmful Chemicals in your Home* factsheet
  - *Drop-off Facilities* brochure

### Discussion Starters:

Have you read labels on products in the past? If yes, what were you looking for? In the past, did you consider the products you use “harmful?” What are some easy first steps you’ll take to reduce harmful chemicals in your home? What did you learn about the product you are currently using?

## Make a non-toxic household cleaner

*Adults and teens*

Provide each participant with a plastic spray bottle and the recipe for the non-toxic, general household cleaner. Make the spray for each adult to take home. Discuss differences in price and safety issues of this kind of product compared to others. Hand out the *Non-Toxic Cleaning Recipes* for other products.

- Non-toxic cleaner recipe for 32 oz. bottle
  - 1/2 c. white vinegar
  - 3 1/2 c. hot water
  - 1 tbsp. liquid dish soap
  - Essential oil (A few drops are optional. Be advised some of these are flammable and hazardous and may be a problem for people with chemical sensitivities, allergies or asthma)

**Directions:** In 32 oz. spray bottle, add vinegar, fill with hot water. Add essential oil if desired. Add dish soap last.

### Suggested supplies:

- Ingredients for non-toxic cleaner
  - 32 oz. spray bottles
  - Labels printed with the recipe and clear packing tape to secure label to the bottle and waterproof it.
  - Measuring cups and spoons
- Handout: *Non-Toxic Cleaning Recipes*

### Discussion starter:

Does anyone already make their own non-toxic cleaning products? Where did you get the recipe? How effective are the products? Have you saved money? Keep in mind that it is important to use recipes from a safe source, such as the Minnesota Pollution Control Agency, and to be careful when mixing any products.

## Techno trash

*Adults and teens*

Electronic waste (or e-waste) such as old cell phones and TVs need to be recycled to make sure the heavy metals they contain do not get into our water, soil or air. Have parents take the *E-Waste IQ Quiz*. Using the *Household Hazardous Waste and Problem Materials Guide*, set examples of problem materials around the room and ask parents what they think should be done with them, then share answers from the guide. Visit the following link for the *E-Waste IQ Quiz* and additional information on how electronics from the United States affect other parts of the world:

<http://ngm.nationalgeographic.com/ngm/2008/01/high-tech-trash/trashquizinteractive>.

### Suggested supplies:

- *E-Waste IQ Quiz*
- Handouts:
  - *Household Hazardous Waste and Problem Materials Guide*
  - *Fluorescent light bulbs: Buy them, use them, recycle them*
  - *Mercury and Mercury-containing products*
- Examples of problem materials from the guide, such as cell phones, batteries, compact fluorescent bulbs, etc.

## Grow grass seeds

*Adults and young children*

Grow grass seeds together and talk about the chemicals that are often used on lawns and gardens.

To prepare seeds: Put potting soil in a container. Sprinkle grass seeds into the soil, cover loosely with more soil, water using a spray bottle, and put in a sunny location. A fun twist: using a stick or pencil, scratch the child's name or first initial into the soil, drop seeds into the scratching, and the grass will grow in the shape of the name.

### Suggested supplies:

- One large, shallow wooden or plastic box or planting tray for all participants to share or individual containers such as old yogurt containers or cut-off plastic bottles.
- Potting soil
- Grass seeds
- Sticks or pencils (optional)
- Handout: *Earth-Friendly Home Landscaping Guide*
- Handout: *Reduce the Need for Pesticides and Herbicides*

### Discussion starter:

Ask participants what kinds of chemical products (e.g. pesticides, herbicides, fertilizers) they currently use to care for their lawn or garden. Share information about less toxic gardening and lawn care.



## Video: Are you Exposing Your Children to a Toxic Brew In Your Home?

*Adults*

This short video explores the toxicity of common household products. It is a good introduction to the topic of toxicity reduction and the importance of label reading.

This video is available in VHS or DVD format. The DVD has subtitles in Spanish or French. It may be borrowed from Hennepin County by calling 612-348-4168. Discuss the video's information, how products are used and the hazards.

**Note about the video:** This video was produced in Canada. The narrator references laws about product labeling. Please note these apply to Canada only. In the U.S., the Environmental Protection Agency regulates pesticides, the Consumer Product Safety Commission regulates non-pesticide hazardous products, and the Food and Drug Administration regulates cosmetics and personal care products. For the most part, these agencies do not regulate what goes into the products but what information must appear on the labels.



Children are especially susceptible to the negative effects of chemicals.

# Energy Conservation & Climate Change

## Campaign goals

Participants will learn:

- How their actions contribute to greenhouse gas emissions and climate change.
- How climate change could affect Minnesota.
- Actions they can take to conserve energy.

## Resources

### **Essential background reading**

If you plan to teach others about this issue, please become familiar with the information provided in the background section.

### **Additional background information**

You may want to understand these details to lead some of the activities described in this section.

**Low Carbon Diet: A 30 Day Program to Lose 5000 Pounds** by David Gershon – a fun workbook for the whole family with step-by-step activities to reduce household emissions.

### **Save Energy, Save Money**

by The Family Handyman – a great technical guide to home efficiency improvements, including tuning equipment, weatherstripping and air sealing, and insulation.

### **Web resources**

- [www.hennepin.us/coolcounty](http://www.hennepin.us/coolcounty)  
Hennepin County has information on what residents can do to reduce their impact on climate change.
- [www.hennepin.us](http://www.hennepin.us), search: solar  
Hennepin County has a solar array on the roof of the county Public Works Facility. View an online monitoring tool that has data about energy generated and avoided greenhouse gas emissions.
- [www.ci.minneapolis.mn.us/Sustainability](http://www.ci.minneapolis.mn.us/Sustainability)  
Information about the city of Minneapolis' Sustainability Indicators and special initiative, including Climate Change Grants and Home-grown Minneapolis.

- [coolcongregations.com](http://coolcongregations.com)

Use Interfaith Power and Light's Cool Congregations Calculator and Energy Audit to determine your congregation's carbon emissions in energy use, transportation, goods and services and waste. The Energy Audit contains fifty questions pertaining to congregations and includes corresponding actions.

- [www.cleanenergyresourceteams.org/community-projects/campaigns](http://www.cleanenergyresourceteams.org/community-projects/campaigns)  
Clean Energy Resource Teams' CERTified Action Campaigns offer ideas to implement energy efficiency and renewable energy projects.
- [www.mnenergychallenge.org](http://www.mnenergychallenge.org)  
This free, online resource helps individuals calculate their carbon footprint.
- [www.epa.gov/cleanenergy/energy-resources/calculator.html](http://www.epa.gov/cleanenergy/energy-resources/calculator.html)  
Use the EPA's Greenhouse Gas Equivalencies Calculator to see the real-world impact of carbon dioxide emissions.

*Resources, cont'd on the next page*



- [www.epa.gov/climatechange/kids/cc.html](http://www.epa.gov/climatechange/kids/cc.html)  
Kid-friendly information on what climate change is and how kids can make a difference. Also includes activities for children and educators.
- [www.energy.state.mn.us](http://www.energy.state.mn.us)  
The state Office of Energy Security has information on energy efficiency and renewable energy.
- [www.climate.gov](http://www.climate.gov)  
The National Oceanic and Atmospheric Administration (NOAA) website offers a background on climate change, resources for educators, and data and research.
- [www.globalchange.gov](http://www.globalchange.gov)  
The U.S. Global Change Research Program integrates federal research on climate change.
- [www.ipcc.ch](http://www.ipcc.ch)  
The International Panel on Climate Change issues a peer reviewed report on climate change every six years.
- [www.leg.state.mn.us/lrl/links/energy.asp](http://www.leg.state.mn.us/lrl/links/energy.asp)  
The Minnesota Legislative Reference Library provides a list of web resources on energy issues, including issues related to climate change.

### **Handout print resources**

*Samples can be found in the Appendix*

*From Hennepin County*

- Making Hennepin a Cool County  
**To order:** Order literature online at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform) or call 612-348-4168.  
*From the Office of Energy Security, MN Department of Commerce*
- 10 Ways to Save Energy
- Numerous Home Energy Guides providing detailed instructions on energy conservation actions, including: Home insulation, Home heating and Attic air leaks.  
**To order:** Order copies by calling 651-296-5175 or download PDF versions at [www.energy.mn.gov](http://www.energy.mn.gov)

## **Background**

Anyone who takes an interest in observing nature over time can see signs that the climate is changing. Plants are blooming earlier in the spring, the ice out date on lakes is occurring earlier in the year, and animal ranges are shifting.

Climate change is not a new phenomenon. Many factors, including fluctuations in the Earth's orbit, varying energy from the sun, volcanic activity and changes in ocean circulation cause the climate to change.

However, the rapid rate at which the climate has been changing for the past 50 years is unusual. Up until the 1960s, climate models that only account for natural forces could explain the observed variations in the Earth's climate. Since the 1960s, these same climate models have increasingly diverged from the observed climate. The difference – an overall warming of the Earth – is explained by the increase in the concentration of greenhouse gases in the atmosphere, which is almost certainly the result of human activity.

We need to reduce the amount of greenhouse gases humans are putting into the atmosphere to provide more time to adjust to these changes and to avoid significant disruptions to the environment and the economy.

## **How do increases in greenhouse gas emissions contribute to climate change?**

Increasing levels of greenhouse gases in the atmosphere are warming the planet. Like windows in a greenhouse, greenhouse gases trap the sun's heat. As the greenhouse gas levels increase, the amount of trapped heat also increases, raising the average temperature of the planet. This is causing many changes in climate worldwide.

Carbon dioxide is the major greenhouse gas contributing to climate change. Carbon dioxide emissions from human activity come primarily from the burning of fossil fuels, such as gasoline and diesel used by vehicles and coal burned to generate electricity. Use of these fuels has been steadily increasing over the past decade.

Carbon dioxide and other greenhouse gases are removed from the atmosphere by trees and other plants, but less forest land and changing agriculture patterns and practices have reduced the rate at which carbon dioxide is removed. The combination of these trends – more fossil fuel use and less carbon dioxide removed by plants – has increased carbon dioxide emissions. Minnesota's carbon dioxide emissions have increased 37 percent over the past 20 years, according to the Minnesota Pollution Control Agency.

## What does climate change mean for Minnesota?

Climate change is already noticeable. Animal and plant habitats are shifting, weather patterns are changing, and severe storms and droughts are becoming more common.

Minnesota has warmed an average of 1 degree Fahrenheit during the past century according to the MPCA. Precipitation has increased by 20 percent since 1990 in parts of Minnesota, especially southern Minnesota. If temperature readings and precipitation continue to increase within the next century, Minnesota might soon feel and look more like Missouri.

Other impacts of climate change in Minnesota include the following.

### **Changes in ecosystems**

Changes in the climate alter the plant and animal species that can survive in a certain area. This has an impact on some of the unique ecosystems and wildlife species that are currently found in Minnesota.

- Areas of the state that are forested will decline by as much as 50 - 70 percent, replaced by grasslands and savannas. The unique northwoods of pine and aspen will be replaced by forests of oak and other trees.



- Reduction in the size and number of prairies due to possible drying. Minnesota prairies are the most important breeding ground for North American waterfowl as well as countless species of birds and insects. Prairies are also home to some endangered plant species.
- Temperature and moisture patterns will change faster than plant and animal communities can adapt. This will result in the extinction of numerous plant and animal species in the next 100 years. Loss of habitat for cold-loving creatures such as trout and moose would cause the decline of these species in Minnesota.
- Some pests, diseases and invasive species may be able to extend their range into Minnesota.
- Increase in heat waves and extremely hot summer days will result in an increase in the incidence of heat-related illness and death. Hotter summers will increase demand for indoor cooling.
- Increased frequency of poor air quality (smoggy) days in summer.
- Milder winters with less snow will decrease opportunities for winter recreation. Milder winters will also affect animal hibernation patterns, stressing food supplies and habitats.

### **Water resources stressed**

- Increased lake evaporation in the summer and decreased length of ice cover in the winter will reduce lake levels and degrade water quality.
- Groundwater resources, a large source of drinking water, may be reduced due to drop in stream flow and lake levels.
- The temperature of lakes is rising, which severely stresses the plants and animals in aquatic habitats.
- Reduced water levels in Great Lakes will reduce the carrying capacity of the large lake freighters, impacting commerce.

### **More extreme weather**

- Weather patterns will become more extreme. The overall frequency of both flooding and droughts will increase.
- Infrastructure for runoff and water management, such as storm sewers, is likely undersized and will need updates to deal with increases in heavy rainfall and flash flooding.

### **Global impacts of climate change**

Despite these changes, Minnesota will be less negatively impacted by climate change than many other areas of the country and the world. Minnesota may actually see some potential benefits, such as warmer nighttime temperatures in winter that would reduce heating costs and a longer growing season that would increase agricultural production (in years without drought). However, the effects of rapid climate change in other parts of the world will impact Minnesota.

- Changing weather patterns will stress existing infrastructure, such as storm sewers, roads, bridges, water storage and aqueducts. New infrastructure demands throughout the U.S. will create greater demand for government services.
- Rising oceans will displace coastal populations in the U.S. and around the world.
- Global water resources and agricultural production will be disrupted, leading to shortages and price spikes.

For more information about the effects of climate change in Minnesota, visit the MPCA's website at [www.pca.state.mn.us/climatechange](http://www.pca.state.mn.us/climatechange).

## What's the difference between weather and climate?

Weather describes whatever is happening outdoors in a given place at a given time. Weather includes daily changes in precipitation, barometric pressure, temperature and wind conditions in a specific location.

Climate describes the total of all weather occurring over a long period of time in a given place. This includes average weather conditions, regular weather sequences (like winter, spring, summer and fall), and special weather events (such as tornadoes and floods).

## How do I reduce my impact on climate change?

The first step to reducing your impact is to understand how you contribute greenhouse gas emissions. The largest sources of carbon dioxide emissions from the daily routine of most people are the cars they drive and the energy used to heat and cool their homes.

The best way to reduce greenhouse gas emissions is to reduce the amount of energy you use. You can do this by driving less, using energy more efficiently in your home and recycling. By reducing the energy you consume in your daily routine, you can reduce your personal greenhouse gas emissions and possibly save money.

Visit [www.hennepin.us/coolcounty](http://www.hennepin.us/coolcounty) for more information on saving energy and reducing your personal greenhouse gas emissions.

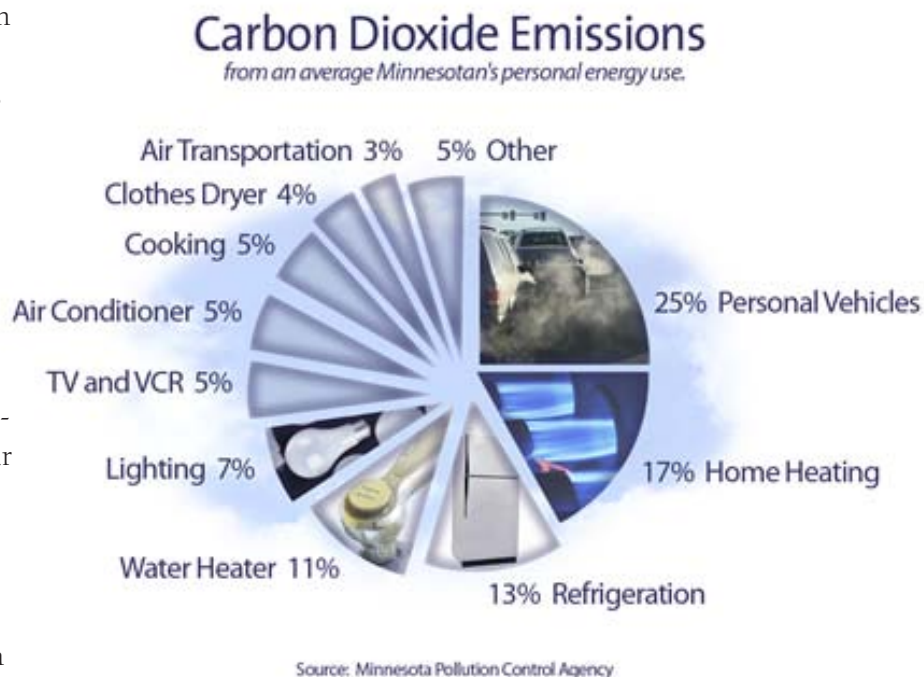
## Calculate your carbon footprint

A carbon footprint is the amount of carbon dioxide that an individual or household puts into the atmosphere every year. There are many resources available to help you calculate your personal carbon footprint. These resources will also help you identify actions to take to reduce your impact. Join the Minnesota Energy Challenge at [www.mnenergychallenge.org](http://www.mnenergychallenge.org) or use the EPA's Personal Emissions Calculator at [www.epa.gov/climatechange/emissions/ind\\_calculator.html](http://www.epa.gov/climatechange/emissions/ind_calculator.html).

## Drive less

- Walk, ride a bike, carpool or take public transit instead of driving. When you need a car, consider using a car sharing program such as HourCar ([www.hourcar.org](http://www.hourcar.org)) or Zipcar ([www.zipcar.com](http://www.zipcar.com)).

- For your commute, start with leaving your car at home just one day a week. When you run errands, consider biking or walking for shorter trips.
- When you do drive, make the most of your fuel economy. Drive the speed limit and idle less. Except when in traffic, turn your engine off if you must wait for more than 30 seconds.
- Plan your errands so you can take care of them in one trip to reduce the overall miles you drive.
- Keep up on your car's maintenance. Keep the tires adequately inflated, the engine tuned and the oil and air filters changed regularly. A well-maintained car is more fuel efficient than one with dirty filters or poorly working parts.
- Visit [www.hennepin.us/coolcounty](http://www.hennepin.us/coolcounty) for links to bike maps, Metro Transit (bus and lightrail) and other green transportation ideas.





## **Reduce energy used in home heating and cooling**

Improving the efficiency of how we heat and cool our homes saves money and reduces our personal greenhouse gas emissions. Home heating and cooling accounts for almost a quarter of the average Minnesotan's carbon dioxide emissions.

- Audit your home's energy use. Conducting a home energy audit can identify places where your home is using energy inefficiently and prescribe ways to improve heat retention. Contact your utility to hire a professional energy auditor, or conduct your own informal energy audit. Visit [www.energystar.gov](http://www.energystar.gov), search: home energy yardstick, for information on conducting your own energy audit.
- Turn your thermostat a degree or two down in the winter and up in the summer, and install a programmable thermostat. A programmable thermostat can control your furnace, air conditioner, air exchanger and humidifier, and it will pay for itself in no time.
- Seal air leaks. An enormous amount of energy is wasted when indoor air escapes through leaks in attics, walls, windows and doors. Use the caulking and weatherstripping guide from the Minnesota Department of Commerce to help you properly seal air leaks, available at [www.energy.state.mn.us](http://www.energy.state.mn.us), search: air leaks.
- Keep up on maintenance. Water heaters, air conditioners, furnaces, gas fireplaces and ventilation systems should be inspected and tuned to keep them operating efficiently and safely. Mechanical system inspections should be done annually, and furnace filters should be changed every month.

- Add insulation. The easiest and most cost-effective way to insulate is by adding insulation to an attic. If you have less than six or seven inches of insulation, you could probably benefit by adding more.

### **Install compact fluorescent light bulbs**

Install compact fluorescent light bulbs (CFLs), especially in your most-used lighting fixtures. CFLs are up to 75 percent more efficient and last up to 10 times longer than standard incandescent bulbs. Make sure you purchase ENERGY STAR-rated CFLs. CFLs contain a small amount of mercury and must be disposed of properly at a county drop-off facility or hardware store with a drop-off program.

### **Turn off and unplug appliances and electronics**

Turning off and unplugging electronics and appliances when they are not in use will save a surprising amount of energy. As much as 40 percent of the energy used to power appliances is consumed while they are turned off. Many appliances enter "passive standby" mode when they are turned off, which allows the appliances to start up quickly when switched on. Other appliances continuously use energy to power clock devices.

- Unplugging appliances and electronics will ensure that they are not consuming energy when switched off. Use power strips to conveniently shut off multiple appliances or electronics.
- You can figure how much energy your appliances use by checking out an energy meter from a Hennepin County Library.
- Purchase energy efficient appliances and electronics by looking for the ENERGY STAR label.

## **Use your refrigerator efficiently**

- Don't keep your refrigerator or freezer too cold. Recommended temperatures are 37 - 40 degrees Fahrenheit for the fresh food compartment of the refrigerator and 5 degrees Fahrenheit for the freezer section. If you have a separate freezer for long-term storage, it should be kept at zero degrees Fahrenheit.
- Make sure your refrigerator door seals are airtight. Test them by closing the door over a piece of paper or a dollar bill so it's half in and half out of the refrigerator. If you can pull the paper or bill out easily, the latch may need adjustment, or the seal may need replacing.
- Cover liquids and wrap foods stored in the refrigerator. Uncovered foods release moisture and make the compressor work harder.
- Regularly defrost manual-defrost refrigerators and freezers. Frost buildup decreases the unit's energy efficiency. Don't allow frost to build up more than one-quarter of an inch.
- Look for the ENERGY STAR label when buying a new refrigerator. Select a new refrigerator that is the right size for your household. Top freezer models are more energy efficient than side-by-side models. Features like icemakers and water dispensers, though convenient, increase energy use.



### **Turn down your water heater**

- Turn your water heater's thermostat to the lowest setting that is comfortable for you and your family. For most people, 120 degrees Fahrenheit is sufficient and safe.
- Switch to a low-flow shower head. It will use about six gallons less water per minute. Taking shorter showers saves even more energy.
- Wash clothes in cold water. Clothes will last longer and colors will stay brighter. Line-drying clothes saves even more energy.
- Insulate your water heater tank. Adding insulation can reduce the heat lost while your water heater is in standby mode by 25-45 percent. Check your warranty first.



### **Reduce, reuse and recycle**

Using less, reusing and recycling can reduce greenhouse gases. When we use less, we reduce the amount of energy needed to extract, transport and process raw materials to manufacture products. Recycling also saves energy because making goods from recycled materials requires less energy than making goods from raw materials. See the Reducing Waste and Recycling chapters of this toolkit for ideas.

### **Eat local**

On average, an American meal travels 1,500 miles to reach the dinner table. Purchasing foods grown locally can reduce the distance your food travels and the amount of fossil fuels used.

- Support local, sustainable and organic farmers by purchasing their products directly or through farmer's markets, community supported agriculture farms (CSAs), food co-ops, natural food stores and local grocers.
- Eat foods that are in season for our region.
- Patronize restaurants that buy from local farmers.
- Bring your own container for leftovers.

### **Purchase renewable energy**

- Many utility providers offer customers an option to purchase renewable energy, usually for an additional charge.
- Learn about home installations of renewable energy at [www.energy.state.mn.us](http://www.energy.state.mn.us).

## **Quick facts and bulletin ideas**

The tips below can be printed in your bulletin, posted on your website, sent in e-mail messages, or used in other ways to gently remind your faith community of the importance of conserving energy.

- U.S. carbon dioxide emissions increased more than 20 percent from 1990 to 2007. (Environmental Protection Agency 2009 U.S. Greenhouse Gas Inventory Report)
- Only 20 percent of homes built before 1980 are considered well-insulated by the U.S. Department of Energy.
- Adequate insulation can cut home energy bills by up to 30 percent while increasing indoor comfort. (U.S. Department of Energy)
- Video game consoles like the Xbox, PlayStation and Wii are consuming more than \$1 billion of electricity annually. (Natural Resources Defense Council)
- If all office computers and monitors in the U.S. were set to sleep when not being used, the country could save more than 44 billion kilowatt-hours and avoid GHG emissions equivalent to those from 5 million cars each year. (Source: U.S. EPA's new Low Carbon IT Campaign)

- As much as 40 percent of the energy used to power appliances is consumed while they are turned off.
- Recycling one aluminum can saves enough energy to power a TV or computer for three hours.
- Recycling an aluminum can is equivalent to saving six ounces of gasoline.
- An ENERGY STAR-qualified compact fluorescent light bulb will save about \$30 over its lifetime and pay for itself in about six months. It uses 75 percent less energy and lasts about 10 times longer than an incandescent bulb. ([www.energystar.gov](http://www.energystar.gov))
- If you adjust your thermostat one degree (down in winter, up in summer) for 16 hours a day, you can save two percent on your fuel bill. (Minnesota Office of Energy Security)



## Congregation-wide campaigns

### Take the Minnesota Energy Challenge

[www.mnenergychallenge.org](http://www.mnenergychallenge.org)

search: Bring the challenge to church

This free, online resource helps organizations and households identify actions they can take to save energy and track the changes they have made. When your congregation commits to simple changes, the online system tells you how much carbon dioxide and money you will save. The website offers an energy challenge specifically developed for faith-based communities that provides tools and resources to fully involve your church. The toolkit, *Faith Community Guide to the Energy Challenge*, contains campaign ideas, success stories, tips and lists of free materials to implement the challenge.

#### Take home action

- Identify ways to save energy

#### Resources

- Contact the project manager, Neely Crane-Smith, at [ncranesmith@mncee.org](mailto:ncranesmith@mncee.org) or 612-335-5852 for more information.
- Laptop computers with Internet connection. If you do not have Internet access, pledge cards are available from the Minnesota Energy Challenge by calling 612-335-5852.

#### Track participation

- By setting up a team for your congregation, you will be able to track how many actions have been taken and how much carbon dioxide and money your members have saved.

## Bike to Worship Challenge

Encourage members to bike, walk or carpool to your congregation on a day of worship. To engage your faith community, plan a ceremony to bless the bikes, participate in the Metro Commuter Challenge during May and June, or invite a Bike Walk Ambassador to teach members how to safely ride bikes in traffic. Help members coordinate biking groups by posting a sign-up sheet on your congregation's bulletin board. You can also increase participation by offering incentive prizes. Members who bike or walk could be entered into a drawing for a prize, and the winners could be announced to the whole congregation.

#### Take home action

- Drive less by biking, walking or carpooling for shorter trips.

#### Resources

- Join the Metro Commuter Challenge at [www.mycommuterchallenge.org](http://www.mycommuterchallenge.org).
- For more information about the Bike Walk Ambassador program and to learn more about bike routes and biking in the Twin Cities, visit [www.bikewalktwincities.org](http://www.bikewalktwincities.org).

#### Track participation

- Track the number of members who participate.
- Follow up with a survey a few months later to see how many members have continued to bike, walk or carpool to services.

## Promote fluorescent bulbs/ Fundraising Initiative

Encourage your community members to replace their incandescent bulbs with compact fluorescent light bulbs (CFLs). Some congregations sell Energy Star certified CFLs as a fundraiser. You can accomplish your fundraising goals, educate your faith community about energy conservation and curb your community's energy consumption simultaneously. Other congregations give away CFLs as prizes or incentives.

Increase awareness of household hazardous waste with your fundraiser as well. With each bulb distributed or sold, include the *Flourescent Light Bulbs: Buy them, Use them, Recycle them* handout to inform members about the proper disposal of CFLs. Remind people that CFLs must be recycled because they contain mercury, and provide them with local recycling options.

### Take home action

- Install CFLs in your most-used lighting fixtures
- Recycle old fluorescent lights.

### Resources

- Handout: *Flourescent Light Bulbs: Buy them, Use them, Recycle them* (See Appendix)
- Purchase Energy Star CFLs in bulk at Whole Energy and Hardware: [www.wholeenergyandhardware.com](http://www.wholeenergyandhardware.com) or 952-448-7488.

### Track participation

- Track the number of CFLs sold or distributed.
- Track the number of handouts distributed.

Follow up with a survey asking how many members switched to CFLs due to the campaign.

## Activities

### Conduct a home energy audit

*Adults and teens*

A home energy audit can help you understand how you use energy in your home and identify ways you can save energy. Have group participants audit their home energy use and set goals for the changes they plan to make. Participants can help each other with projects like weatherizing windows or sealing air leaks.

There are many resources available to help with home energy audits and identifying energy-saving actions.

- Your utility provider may have online tools to help you conduct your own energy audit. Your utility provider also has professional energy auditors that can conduct energy audits.
- ENERGY STAR Home Energy Yardstick, [www.energystar.gov](http://www.energystar.gov), search: "energy yardstick"
- U.S. Department of Energy, [www.energysavers.gov](http://www.energysavers.gov), search: "home energy audit"
- Home Energy Saver, [www.hes.lbl.gov](http://www.hes.lbl.gov)

### Suggested supplies:

- Any of the resources listed above.
- Examples of weatherizing materials such as caulk, weatherstripping, plastic for windows, etc.

### Discussion starter:

Do you winterize your home when the seasons change? Why or why not? What barriers stand in your way? How can winterizing your home help your children?

## Conduct a lighting audit

*Adults and teens*

Register your house of worship for a complete assessment of your congregation's lighting to reduce energy consumption and cost. The One-Stop Efficiency Shop, a program run through the Center for Energy and the Environment and Xcel Energy, offers a free lighting audit that upgrades your lighting sources to be more energy efficient, refers you to contractors and offers low-cost financing options and follow-up inspections. For more information and to arrange an audit, contact your Xcel Energy account manager, the Business Solutions Center at [bsc@xcelenergy.com](mailto:bsc@xcelenergy.com) or the One-Stop Efficiency Shop at 612-335-3487.

### Map your route

*Adults and teens*

Request free copies of the Hennepin County Road & Bike Map (see Appendix) by calling 612-596-0352, or find it online at [www.hennepin.us](http://www.hennepin.us), search: bike map. Visit Metro Transit at [www.metrotransit.org](http://www.metrotransit.org) or call 612-373-3333 for bus and light rail maps. Bring these materials to the next meeting of your group and help people who are unfamiliar with bike trails and public transportation find options for getting to and from work, school or other places they frequently drive. Visit [www.bikewalktwincities.org](http://www.bikewalktwincities.org) for other resources and ideas.

### Suggested supplies:

- Hard copies of the Hennepin County Road & Bike Map (see Appendix) and Metro Transit bus and light rail maps, or access to the Internet.



### Discussion starter:

How familiar are you with nearby bike trails and public transportation routes? What trips could you walk, bike or take public transportation? Are there any barriers that are stopping you? How could you overcome those barriers?

### Learn about your utility bill

#### Adults

Paying bills may not be any fun, but you can learn a lot about your home energy consumption from your utility bill. Have participants bring in their utility bill and analyze the information on it. Compare the energy consumption among participants. Analyze how energy consumption changes during different times of the year. Consider tracking your group participants' energy consumption over time. Discuss what factors affect energy use and encourage participants to share steps they've taken to reduce energy consumption.

#### Suggested supplies:

- Utility bills

#### Discussion starter:

Did you learn anything new from this exercise? Many people don't even look at their bills (other than the amount due!) –what did this exercise change for you?



### Learn about electricity consumption

#### Adults and teens

Learn about appliance and electronic electricity consumption by using an energy meter.

Energy meters can help you identify high energy use appliances and electronics in your home, determine how much it costs to use appliances and identify “energy vampires” – appliances that use energy when switched off. Borrow or buy energy meters and allow group members to take them home for a week and then share their findings. Have members of your group assess the electricity use of appliances and discuss ways to reduce energy consumption.

#### Suggested supplies:

- Energy meters

Energy meters are available for check-out at Hennepin County libraries. Visit [www.hennepin.us/coolcounty](http://www.hennepin.us/coolcounty) or [www.hclib.org](http://www.hclib.org) for more information.

Energy meters can be purchased for about \$25. Check at hardware stores or search online.

#### Discussion starter:

What appliance or electronic used the most energy in your home? What appliances or electronic items do you leave on all the time? Why? Were you surprised by anything? How can we reduce the amount of energy consumed by appliances and electronics?

Energy meters are available for check-out at Hennepin County libraries.

### Back in my day...

*Children 8 and up, adults, and older adults (intergenerational activity)*

Match up children and young adults with older adults to discuss differences in how energy is used and conserved today compared to several decades ago. Refer to the Carbon Dioxide Emissions diagram (pg. 32) and discuss the categories on it.

Write up energy-saving ideas remembered by the older adults. Children can add drawings of what they heard.

#### Suggested supplies:

- Notepaper, audio recording device if desired.
- Art materials for children's drawings.

#### Discussion starters:

- How did you get to school? How did your family get around town, or out of town? Did you have your own car?
- If you didn't have air conditioning, how did you keep cool in the summer?
- Instead of using the computer, what did you do with family or friends for entertainment?
- What could kids today learn from older people about how to save energy?
- Are you concerned about global warming? What should we be doing about it?

### Weather collage

#### Children

Choose magazine pictures or photographs that depict different types of weather. Encourage children to sort and organize the pictures, then make a mural of weather images for your congregation or make individual collages for the children to take home.

#### Suggested supplies:

- Old magazines
- Scissors
- Tape



## Book/movie club

*Adults and teens*

Read books or essays that deal with energy efficiency and environmental issues, such as the movie *Inconvenient Truth* or the books *Animal, Vegetable, Miracle* or *Omnivore's Dilemma*. Read books from different points of view. Discuss reactions to the information. Commit to make one or more energy-saving change based on what you learned (decided as a group or individually). Write down your commitments and share them with the group.

### Suggested supplies:

- Books or essays for group

### Discussion starter:

What did you like or dislike about this book? How did it change your perspective on the topic? In what ways might youth, parents or older people have different perspectives on these issues?

## Try a clothesline

*Adults and children who can help with laundry*

Clothes dryers are typically one of the top three energy-using appliances in the home – an average family spends \$80 to \$120 per year drying clothes.

Encourage participants to air dry clothing on a drying rack or on a clothes line made from inexpensive heavy-duty rope. By using either method, families can save energy and money. A calculator to determine how much energy could be saved is available at [www.laundrylist.org](http://www.laundrylist.org).

Discuss other ways to save energy when doing laundry. For example, washing clothes in cold water or using the dryer's automatic dryness sensors.

### Suggested supplies:

- Clotheslines for group members and hardware to install/mount them

### Discussion starter:

Do you use the clothesline? Why or why not? How do you feel about using a clothesline (some people really like the idea, others are averse)? Studies show that when people see others acting in certain ways, they are more likely to change their own behavior. Do you think you might influence others by simply using a clothesline? What message does it send?

## Local foods potluck

*Adults and children who can help cook*

Host a meal or potluck focused on local foods grown within 100 to 300 miles of the Twin Cities. Award prizes for the “most local” dishes or most creative use of local ingredients – avoid using disposable dishware. Host a similar event several times a year, as local (seasonal) foods vary. Provide your group with information on farmer's markets or CSA (Community Supported Agriculture) programs, which can be found in the Minnesota Grown Directory at [www.minnesota.grown.com](http://www.minnesota.grown.com).

### Suggested supplies:

- Minnesota Grown Directory
- Reusable dishware

**Discussion starters:** Growing seasons vary widely. In countries such as Mexico, it is much longer than it is here in Minnesota. In parts of Asia or India, it may be shorter. How does this affect a culture's food choices? Did you ever think about how far food travels from farm to plate? Do you like the idea of eating locally? How might it benefit your family to join a CSA or try to eat locally?

## Bike tune-up party

*Adults and children with bikes*

If you or someone you know is familiar with basic bicycle maintenance, offer to help others get their bikes out of the garage or basement and onto the road! Host a gathering at your congregation or in your backyard, ally or driveway. Teach kids what they can do. Visit a local bike shop for more ideas and resources on basic bike tune ups.



# Protecting Water Resources

## Campaign goals

Participants will learn:

- What a watershed is and what watershed they are in.
- How their actions affect water quality in nearby streams, rivers and lakes.
- Actions they can take to protect water resources

## Resources

### Web resources

- [www.hennepin.us/naturalresources](http://www.hennepin.us/naturalresources)  
Information on water quality topics, watersheds in Hennepin County, volunteer monitoring programs and actions you can take to protect water resources.
- [www.dnr.state.mn.us/waters](http://www.dnr.state.mn.us/waters)  
The Minnesota Department of Natural Resources offers background information on a variety of water topics and data and maps of water resources.
- [www.dnr.state.mn.us/projectwet/index.html](http://www.dnr.state.mn.us/projectwet/index.html)  
[www.projectwet.org](http://www.projectwet.org)  
Project WET (Water Education for Teachers) is an international, interdisciplinary water science and education program for formal and non-formal educators of K-12 students.
- [www.CleanWaterMN.org](http://www.CleanWaterMN.org)  
Offers information and educational resources on stormwater pollution prevention.
- [www.ci.minneapolis.mn.us/residents/environment.asp](http://www.ci.minneapolis.mn.us/residents/environment.asp)  
Information for residents on stormwater, rain barrels, rain gardens and drinking water.
- [www.BlueThumb.org](http://www.BlueThumb.org)  
Information for Twin Cities residents on water friendly yard and garden practices, such as planting native plants, installing a rain garden and using a rain barrel.
- [www.worldwatermonitoringday.org](http://www.worldwatermonitoringday.org)  
You and your group can use the resources from World Water Monitoring Day to conduct water tests and learn about water quality issues like temperature, turbidity, pH and dissolved oxygen content.
- [www.epa.gov/owow/weatherchannel/whatyoucando.html](http://www.epa.gov/owow/weatherchannel/whatyoucando.html)  
Information from the U.S. Environmental Protection Agency on what you can do to protect water quality.

*Resources, cont'd on the next page*

- [www.epa.gov/OW](http://www.epa.gov/OW)  
The U.S. Environmental Protection Agency Office of Water has background information on water topics and educational resources.
- [www.pca.state.mn.us/water](http://www.pca.state.mn.us/water)  
The Minnesota Pollution Control Agency has information on water pollution and protecting water quality.

## Handout print resources

*Samples can be found in the Appendix*

*From Hennepin County*

Order free literature online at [www.hennepin.us/literatureorderform](http://www.hennepin.us/literatureorderform) or call 612-348-4168.

- Earth-Friendly Home Landscaping Guide
- Ten Things You Can Do to Improve Minnesota's Lakes, Rivers and Streams.
- Hennepin County Landowner Guide—A guide to help residents that own at least a few acres of property care for the natural resources on their land.

Water Quality Newsletter Articles – The articles are available for use in your newsletter or on your website at [www.hennepin.us/environmental/education](http://www.hennepin.us/environmental/education). The topics include: five easy things you can do to protect water quality, adopt a storm drain, earth-friendly lawn care tips, and rain gardens.

## Educational displays

### ***“Your Street Connects To Lakes and Rivers” Display***

Reserve Hennepin County's interactive display that demonstrates residential (non-point) sources of water pollution in a simple and effective manner. Individuals place “pollution balls” down the storm drain and follow as they enter the nearby lake or stream. It is great to use at local neighborhood events, watershed festivals or in individual classrooms. To reserve this interactive display, please call Hennepin County Environmental Services at 612-348-4168.

### ***Stormwater education exhibits***

WaterShed Partners' stormwater education exhibit items are available to be checked out. For a description of the items, visit [www.hamline.edu/education/environment/cgee/Watershed/Exhibit/index.html](http://www.hamline.edu/education/environment/cgee/Watershed/Exhibit/index.html)

## Tours

### ***Visit an eco-yard.***

Hennepin County maintains two eco-yards where residents can learn about environmentally friendly, sustainable landscaping. Visit [www.hennepin.us](http://www.hennepin.us), search: eco-yards, to learn more.



## Speakers and workshops

- Hennepin County Environmental Services staff and Master Naturalist volunteers are available to give presentations on water quality topics. Contact Mary Karius at [mary.karius@co.hennepin.mn.us](mailto:mary.karius@co.hennepin.mn.us) or 612-596-9129 or Stacey Lijewski at [stacey.lijewski@co.hennepin.mn.us](mailto:stacey.lijewski@co.hennepin.mn.us) or 612-348-9938.
- Hennepin County Master Gardeners are available to give presentations, host workshops or teach classes on a variety of landscaping topics. Visit [www.hcmg.umn.edu](http://www.hcmg.umn.edu) for more information.

## Background

Minnesota is known for its abundance of water resources. Hennepin County has about 200 lakes, three major rivers – the Mississippi, Minnesota and Crow – and numerous streams, ponds and wetlands. Protecting the health of streams, rivers, lakes and wetlands is important for water quality, recreation, wildlife and tourism.

The quality of water resources in Minnesota is threatened by increasing development and pollution. When it rains, the stormwater that runs off driveways, lawns, houses and parking lots can carry pollutants such as oil, paint and chemicals down storm sewers and into nearby lakes, streams and rivers.

There are a variety of steps that individuals can take to reduce runoff and protect water resources.



## Watersheds

### **What is a watershed?**

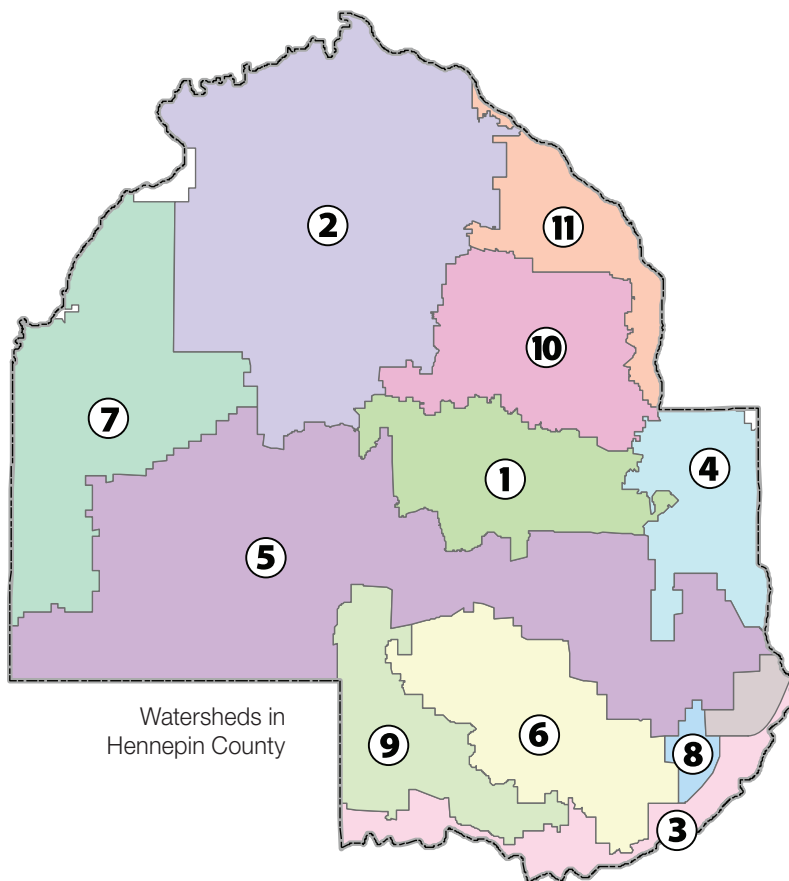
A watershed is an area of land that catches any form of water, including rain, snow or other precipitation, and drains to a common lake, river or stream. Watersheds come in all different shapes and sizes. Smaller watersheds drain into larger watersheds, much like a creek drains into a river. Some watersheds cross county, state, and even international borders.

Water resources are all connected. The rain water that falls on your house, lawn or driveway runs into a nearby lake, river or stream. This water, like all the water resources in Hennepin County, will flow into the Mississippi River and eventually into the Gulf of Mexico. Actions taken to protect or pollute water will impact the quality of lakes, rivers or wetlands downstream.

### **Watershed organizations**

Water resources are managed by either a watershed district or watershed management organization, which are special units of local government that work together to solve and prevent water-related problems. Watershed organizations regulate land-disturbing activities, perform capital improvement projects and provide environmental education related to water issues.

The watershed organization where your neighborhood, school or organization is located can provide you with information and environmental education projects related to local water resources. Use the watershed map or the more detailed map in the Appendix to determine your watershed and its website. Contact Hennepin County at 612-596-9129 if you need assistance determining your watershed.



### **Watersheds in Hennepin County**

1. Bassett Creek Watershed Management Commission, [www.bassettcreekwmo.org](http://www.bassettcreekwmo.org)
2. Elm Creek Watershed Management Commission, [www.elmcreekwatershed.org](http://www.elmcreekwatershed.org)
3. Lower Minnesota River Watershed District, [www.watershreddistrict.org](http://www.watershreddistrict.org)
4. Middle Mississippi River Watershed Management Organization, [www.mwmo.org](http://www.mwmo.org)
5. Minnehaha Creek Watershed District, [www.minnehahacreek.org](http://www.minnehahacreek.org)
6. Nine Mile Creek Watershed District, [www.ninemilecreek.org](http://www.ninemilecreek.org)
7. Pioneer-Sarah Creek Watershed Management Commission, [www.pioneersarahcreek.org](http://www.pioneersarahcreek.org)
8. Richfield-Bloomington Watershed Management Organization, [www.rbwmo.com](http://www.rbwmo.com)
9. Riley Purgatory Bluff Creek Watershed Commission, [www.rileywd.org](http://www.rileywd.org)
10. Shingle Creek Watershed Management Commission, [www.shinglecreek.org](http://www.shinglecreek.org)
11. West Mississippi River Watershed Management Commission, [www.shinglecreek.org](http://www.shinglecreek.org)



## Steps you can take to improve Minnesota's lakes, rivers and streams

1. **Use your runoff.** You can keep water in your yard and reduce runoff by directing downspouts onto your lawn or garden or into a rain barrel. Rainwater is free and naturally soft, and can be used to water your lawn or garden.
2. **Don't rake grass clippings and leaves into the street.** Leave them on your lawn, use them for compost, or bag them up. Grass clippings and leaves left in the street end up in the storm sewer, where they are carried to nearby lakes and streams. Clippings and leaves contain phosphorus and other nutrients that feed algae and other aquatic plants. This can cause excess algae growth that can negatively impact other plants and wildlife and can be unsafe for pets.
3. **Scoop the poop.** Grab a bag when you grab the leash and pick up after your pets. Pet waste left on the ground can be washed into lakes and rivers with rain water and runoff. Pet waste contains bacteria that can cause illness in humans and animals.
4. **Use chemicals wisely.** Read and follow the label instructions when using herbicides and pesticides. Use the minimum amount needed to control the problem. If you can, consider using alternative or natural remedies to control weeds and pests or remove the problem by hand.
5. **Fertilize smart.** Sweep up any fertilizer that spills onto hard surfaces. Excess fertilizer washes away into nearby lakes or streams where it can feed algae, causing rapid growth known as algae blooms. Algae blooms stress fish and wildlife and make swimming and fishing unpleasant or impossible.
6. **Keep a healthy lawn.** A healthy, vigorous lawn needs less watering, fewer chemicals and less maintenance. Aerate your lawn periodically to loosen the soil. Seed bare patches to prevent erosion and soil loss. Mow at a higher setting. Grass mowed to a height of 2 ½ to 3 inches develops deeper, healthier roots and has a competitive advantage over weeds.
7. **Plant a rain garden.** Rain gardens are depressions planted with a diverse mix of native wildflowers and grasses designed to collect rainwater and allow it to soak into the soil. This will reduce the water running off your property into storm sewers.
8. **Replace turf with native plants.** Swap some of your high-maintenance lawn for low-maintenance native ground cover, plants or grasses. Many native plants develop deeper root structures than turf grass, which reduces runoff by allowing for better water infiltration.
9. **Reduce your footprint.** Replace some pavement - such as a walk, patio or driveway - with pavers or pervious pavement. The porous surface will allow water to seep through.
10. **Adopt a storm drain.** Keep neighborhood storm drains free of leaves, seeds and grass clippings. Storm drains are directly connected to the nearest body of water. Water running into storm drains can carry with it anything dumped nearby including leaves, grass clippings, soil, oil, paint and chemicals.

For more information on these steps, visit [www.hennepin.us/environment](http://www.hennepin.us/environment).



Replace turf with native plants.

Replace some pavement - such as a walk, patio or driveway - with pavers or pervious pavement.



## Quick facts and bulletin ideas

The tips below can be printed in your bulletin, posted on your website, sent in e-mail messages, or used in other ways to gently remind your faith community of the importance of conserving and protecting water resources.

- Minnesota has 90,000 miles of shoreline. That's more than California, Florida and Hawaii combined.
- Minnesota had 18.6 million acres of wetlands in 1850. In 2003, Minnesota had 9.3 million acres of wetlands. (Minnesota DNR, [www.dnr.state.mn.us/faq/mnfacts/water.html](http://www.dnr.state.mn.us/faq/mnfacts/water.html))
- Water acts as a natural insulator to regulate the earth's temperature
- Only one percent of the Earth's water is available for drinking. The oceans hold 97 percent of the Earth's water; only three percent is fresh water. Of the three percent that is fresh water, two percent is currently frozen, leaving one percent as available drinking water.
- It is possible to drink water that was on Earth during the dinosaur era.
- Because of impervious surfaces like pavement and rooftops, a typical city block generates more than five times more runoff than a woodland area of the same size. (U.S. EPA, [www.epa.gov/npdes/pubs/nps\\_urban-facts\\_final.pdf](http://www.epa.gov/npdes/pubs/nps_urban-facts_final.pdf))
- On average, a person uses about 80 - 100 gallons of water a day. The largest uses of household water is to flush the toilet and for showers and baths. (U.S. Geological Survey, [ga.water.usgs.gov/edu/qahome.html](http://ga.water.usgs.gov/edu/qahome.html))
- A five minute shower takes 10 to 25 gallons of water. A full bath requires about 70 gallons. (EPA WaterSense, [www.epa.gov/watersense](http://www.epa.gov/watersense))
- A toilet from 1992 or earlier uses at least 3.5 gallons of water per flush. Newer toilets with the EPA WaterSense label use less than 1.3 gallons per flush. (EPA WaterSense, [www.epa.gov/watersense](http://www.epa.gov/watersense))

## Congregation-wide campaign

### Sustainable Landscaping Campaign

Water quality in Minnesota is threatened by both storm water runoff that can carry pollutants such as oil, paint and chemicals into nearby water resources and the proliferation of invasive plant species. Implementing sustainable landscaping practices can reduce the need for fertilizers and pesticides. In addition, many plants native to Minnesota require less water and maintenance compared to non-native plants.

Inform your congregation members about the role rain gardens and native plants play in improving water quality. Promote the ways that sustainable landscaping is a simple and effective method to preserve the environment by distributing informational materials and posting related announcements. Host an event in the spring or early summer. Some congregations invite a Master Gardener to staff a booth and answer questions after a service. Others sell native plants as a fundraiser.

#### Take home action

- Change lawn care practices to conserve water and reduce the use of fertilizers and pesticides.
- Replace turf grasses with native plants.
- Compost food, yard and garden waste.
- Remove invasive plant species, such as Buckthorn.
- Use a rain barrel to collect and reuse rainwater, or direct downspouts into your lawn or garden.

### Resources

- Visit [www.hennepin.us/sustainable-landscaping](http://www.hennepin.us/sustainable-landscaping) for more information and links to resources.
- Visit [www.bluethumb.org](http://www.bluethumb.org) for a list of green landscaping companies, help with plant selection and plant nursery options
- Go to [www.cleanwatermn.org](http://www.cleanwatermn.org) for promotional tools and educational strategies

### Activities:

- Build a rain barrel (pg. 51)
- Lawn Care Contest (pg.51)

### Handouts (See the Appendix):

- *Earth-Friendly Home Landscaping Guide*
- *Hennepin County Landowner Guide*
- *Ten Things You Can Do to Improve Minnesota's Lakes, Rivers and Streams*
- *How to Compost Organic Waste*
- *Diagnosing Common Backyard Composting Problems*
- *How to Grow a Healthy, No-Waste Lawn & Garden*
- *Reduce the Need for Pesticides and Herbicides*

### Track participation:

- Track how many handouts are distributed and how many members participate at the event.
- Follow up with a survey to assess what landscaping techniques members have implemented to protect water quality. Have they removed turf to use native plants, started composting organic waste, started using a rain barrel, etc.?

## Activities

Note that many of the activities in the Toxicity Reduction chapter also help improve water quality. By reducing our use of toxic household products and learning to properly dispose of them, we help keep chemicals out of our water, too.



## Where in the Watershed?

### All Ages

Learn about the watershed where you live. Use the watershed map in the Appendix to identify the lakes, streams and rivers in your watershed. Analyze how the water resources are connected. Have participants use highlighter pens to trace how the water that falls on the property of their homes, schools, or organizations travels to nearby lakes, streams and rivers. Younger members of the group could create pictures or murals.

Read about what people can do to conserve water and reduce pollution in the Background section of this chapter. Encourage people to choose changes they want to make and write these on their watershed picture. Display the picture on the refrigerator or another public place. Plan for a fun celebration of clean water once goals/changes are met, such as a day at the beach, at the sledding hill or on the water in a canoe, kayak or paddleboat.

### Suggested supplies:

- Construction or butcher paper
- Markers, paint or crayons
- Images of water cut from magazines
- Watershed map from the Appendix

### Discussion starter:

What watershed do you live in? Did you know this prior to this activity? Why is it important for participants to know what watershed they live in? How can the behavior of people living in one watershed affect the people in another watershed?

## Volunteer to monitor water quality

### Adults and high school students

Volunteers obtain data on water quality and biological communities to assess the overall health of streams and wetlands.

- River Watch provides hands-on environmental education opportunities for high school classes and student groups.
- In the Wetland Health Evaluation Program, volunteers obtain water quality data in wetlands. Work includes collecting and identifying insects and plants and completing data sheets.

The program runs from April to August. For more information, call Mary Karius at 612-596-9129, e-mail [mary.karius@co.hennepin.mn.us](mailto:mary.karius@co.hennepin.mn.us) or visit [www.hennepin.us](http://www.hennepin.us), search: volunteer monitoring.

## Plant a Native Garden

Does your congregation have a lawn, garden or vacant lot nearby? To teach community members about the importance of native plant growth in conserving water and improving water quality, organize a spring and summer project to plant a native species garden around your house of worship, if space permits. Native plant gardens save water, reduce air pollution and beautify the neighborhood. Continue to involve congregation members in garden maintenance throughout the year by hosting monthly garden days. Visit [www.bluthumb.org/nativegardens](http://www.bluthumb.org/nativegardens) for further information. See the Service Learning Ideas Section pg. 59 for more information on making this a youth-led service project.



## Maintain your drain—keep your block litter-free

*Adults, teens, children 6 and over with adult supervision*

Runoff from driveways, lawns, houses and parking lots can carry pollutants such as oil, paint and chemicals down storm sewers and into nearby lakes, streams and rivers. Monitoring storm drains can help keep leaves, grass, litter and other items from getting washed into lakes and streams.

Collect everything from the gutter in front of your house, school or organization during a specific time period. Children should be closely supervised, wear gloves, and should only pick up what they recognize and know is safe to touch. Analyze what you found, and ask where it might have come from. Organize volunteers to adopt a block/area to keep free of litter on a regular basis. Share what you are doing and why with neighbors in the area.

### Suggested supplies:

- Clear plastic bags
- Protective gloves

### Discussion starter:

Were you surprised by the amount you collected? What was the strangest item you found? The largest? How do you think this stuff winds up in the gutters? Do you think this activity has an impact?

## Build or buy a rain barrel

*Adults and children over 8*

Rain barrels can be placed under a roof downspout to collect storm-water runoff that can be used for watering your lawn and gardens. This reduces runoff that can carry pollutants into streams and rivers. Rain barrels can be purchased at local hardware stores or through special sales organized by government agencies or non-profit organizations.

You can also build your own rain barrel. Your congregation could purchase the supplies and offer free or low-cost workshops for residents who want to build a rain barrel. For instructions on constructing a rain barrel or for more information on rain barrel sales, visit [www.hennepin.us](http://www.hennepin.us), search: rain barrels.

### Suggested supplies:

- Depends on the style of barrel to be built; see the link referenced above.

### Discussion starter:

Would you use a rain barrel? Why or why not? How has using a rain barrel affected your family's water use?



Use your runoff.

## Lawn care contest

*Adults*

Is a beautiful lawn possible without the use of chemicals, fertilizers and lots of watering? The actions you take to care for your lawn and garden can have a tremendous impact on the environment. Traditionally, yard care includes large quantities of water, fertilizers, pesticides, weed control and money. Hold a contest or demonstration project with your neighbors to show what can be done using earth-friendly methods. Invite Master Gardeners from the University of Minnesota Extension to serve as judges.

### Suggested supplies:

Hennepin County's *Earth-Friendly Home Landscaping Guide*. View online or order a free copy at [www.hennepin.us/sustainablelandscaping](http://www.hennepin.us/sustainablelandscaping).

## "This Drains To River!" Mark the storm drains

*Adults and children over 10*

When volunteers mark or stencil a message next to the storm drains in the street, it reminds everyone that whatever goes down the storm drain ends up in the nearest body of water. A free Storm Drain Stenciling Guide is available in the Appendix or online at [www.cleanwatermn.org](http://www.cleanwatermn.org), under About You. Storm drain stenciling must be coordinated with city government.





## Organize a river clean up

*Adults and children over 5*

Hold a clean-up day on a section of stream, river or lake. Keep track of the type and amount of garbage found. Discuss with your group where the waste could have come from and how garbage could be kept out of rivers and streams. Consider offering prizes for the biggest or strangest item found. Resources are available to help you identify a stream to clean up and to ensure the safety of your group:

- The Adopt a River program through the Minnesota DNR helps group select a site, provides a How-To kit for organizing a clean up, and supplies free bags and gloves. Volunteers are required to commit to conducting an annual clean up for two consecutive years. For more information, visit [www.dnr.state.mn.us/adoptriver/index.html](http://www.dnr.state.mn.us/adoptriver/index.html).
- Your watershed district may provide assistance in selecting a site or offer other opportunities to get involved.

## Bio bingo

*All ages*

Encourage your group to explore nearby aquatic ecosystems. Use the bio bingo card from the appendix and search for the organisms listed on the card. Observe the environment using your eyes, a magnifying glass or binoculars, or sample the water with a net. Have players take pictures of the organisms or draw pictures of what they observe. Discuss relationships between the organisms and how changes in the environment may affect them.

### Suggested supplies:

- Bio bingo card (see Appendix)
- Magnifying glass, binoculars and net

## Measure the pH of water

*All ages*

The pH of water indicates how acidic or basic the water is. Most fish can tolerate pH values of about 5.0 to 9.0, but the optimum range is between pH 6.5 to 8.2. Collect water samples from a nearby lake, river or stream and use pH strips to determine the acidity or alkalinity of the water. To use the test strips, dip a strip into the water, wait until color develops and compare the color to the pH chart. Test water during different seasons or after precipitation to observe how the pH changes.

### Suggested supplies:

- pH strips (Kits can be ordered online, try [www.hach.com](http://www.hach.com))
- pH chart

## Rain gauge monitoring

*All ages*

Install a rain gauge on your property to monitor daily precipitation totals. Compare results from different locations in the community. Data can be shared directly with the State Office of Climatology ([www.climate.umn.edu](http://www.climate.umn.edu)) and is used to develop maps and reports of precipitation trends. Supplies, including a rain gauge and worksheets, are available from Hennepin County. Contact Mary Karius at [mary.karius@co.hennepin.mn.us](mailto:mary.karius@co.hennepin.mn.us) or 612-596-9129 for more information.

## Water Watch

*Youth grades 3 - 6*

Find a sink with a hot water faucet. Ask youth to write down how many cups of water they predict will be wasted before the water runs hot. Turn on the faucet and collect water in the bucket until the water is hot. Measure the water collected. Ask for youth to share their predictions.

### Suggested supplies:

- Large bucket, stop watch, measuring cup, paper, pencils

### Discussion starters:

How many cups do each of us (or each family) waste each day (multiply number of youth by cups wasted)? How can we conserve more water in daily life?

# Faith-based Environmental Resources

Visit the sites below for a variety of interfaith and denominational resources for faith-based communities.

## Interfaith:

- Alliance for Sustainability  
[www.afors.org](http://www.afors.org)  
Twin Cities-based organization with environmental sustainability related information and events.
- Alliance of Religions and Conservation  
[www.arcworld.org/faiths.htm](http://www.arcworld.org/faiths.htm)  
Comprehensive resource that illuminates several faith traditions' historical and present relationship with nature.
- Cornwall Alliance for the Stewardship of Creation  
[www.cornwallalliance.org/about](http://www.cornwallalliance.org/about)  
An environmental declaration and ethical statement published by a coalition of scholars and religious leaders.
- Ecology Resources to Transform Faith Communities and Society  
[www.webofcreation.org](http://www.webofcreation.org)  
Training Manual for The Green Congregation Program, a program to make congregations more sustainable and energy efficient.
- Minnesota Interfaith Power and Light (MNIPL)  
<http://mnipl.org>  
Formerly Congregations Caring for Creation, MNIPL is the Minnesota branch of the national umbrella organization Interfaith Power and Light (IPL). The site includes Minnesota-specific information on faith communities' response to climate change, how to develop a green team and how to affect environmental public policy.
- National Council of Churches Eco Justice Program  
[www.nccecojustice.org](http://www.nccecojustice.org)  
Covers nation-wide environmental justice issues and how congregations take action.
- National Interfaith Power and Light  
<http://interfaithpowerandlight.org>  
Provides sermon ideas, booklists, energy efficiency information, a carbon footprint calculator and an online store for energy efficient items.
- The National Religious Partnership for the Environment,  
<http://nrpe.org/>  
This organization is a national Catholic, Jewish, Eastern Orthodox, and Mainline and Evangelical Protestant partnership for the environment. Their site offers each religion's environmental perspective, activity and event ideas, and background on environmental issues.
- The World Forum on Religion and Ecology at Yale  
<http://fore.research.yale.edu>  
Includes interfaith resources, news and events. Go to the "World Religions" list for comprehensive information about world religions' ecological outlooks.

## Baha'i

- Baha'i Topics  
<http://info.bahai.org>  
General information about the international Bahai'community and its mission and vision.
- One County Online Newsletter  
[www.onecountry.org/listenv.html](http://www.onecountry.org/listenv.html)  
Baha'i stories about environmental conservation and sustainable development.
- Baha'i World News Service  
<http://news.bahai.org/archive.php?category=238&year=0&month=0&Submit=Search>  
Baha'i world news climate change publication archive.

## Buddhism

- Buddhist Peace Fellowship  
[www.bpf.org](http://www.bpf.org)
- Code of Buddhist Eco Practice  
[www.ecopractice.fwbo.org](http://www.ecopractice.fwbo.org).
- Earth Sangha  
[www.earthsangha.org](http://www.earthsangha.org)  
Buddhist environmental values in action. Non-profit charity devoted to ecological restoration.
- Ecological Buddhism  
[www.ecobuddhism.org](http://www.ecobuddhism.org)  
A Buddhist response to global warming.
- Green Sangha  
[www.greensangha.org](http://www.greensangha.org)  
“Healing our communities and the earth through mindful practice and awakened action.”
- The Zen Environmental Studies Institute  
[www.mro.org/zesi/zesihome/index.html](http://www.mro.org/zesi/zesihome/index.html)

## Christianity

- Earth Ministry  
<http://earthministry.org/>  
A non-profit organization committed to engaging the Christian and broader interfaith community in environmental stewardship.

## Catholic and Evangelical

- The Interfaith Council for Environmental Stewardship  
[www.seekgod.ca/ICES.htm](http://www.seekgod.ca/ICES.htm)

## Episcopal

- Minnesota Episcopal Environmental Stewardship Commission  
[www.env-steward.com](http://www.env-steward.com)

## Lutheran

- Lutheran EarthKeeping network for the Synods  
[www.webofcreation.org/LENS/care4create.html](http://www.webofcreation.org/LENS/care4create.html)

## Presbyterian

- Presbyterian Earth Care Team  
[www.ptcaweb.org](http://www.ptcaweb.org)

## Protestant and Orthodox

- National Council of Churches for Eco-Justice  
<http://nccecojustice.org/about>  
Includes campaign and action info, and environmental education resources.

## Roman Catholic

- Archdiocesan Environmental Stewardship Team  
<http://osjspm.org/globalwarming>  
Archdiocese of St. Paul and Minneapolis climate change parish toolkit.
- U.S. Conference of Catholic Bishops  
[www.usccb.org/sdwp/ejp/climate/wcd.shtml](http://www.usccb.org/sdwp/ejp/climate/wcd.shtml)  
Climate Change Justice and Health Initiative – a Catholic resource for environmental justice and climate change.

## Islam

- The American Muslim  
[www.theamericanmuslim.org/tam.php/features/articles/environment\\_ecology](http://www.theamericanmuslim.org/tam.php/features/articles/environment_ecology).  
A vast collection of articles on environment and ecology in Islam.
- Islamic Foundation for Ecology and Environmental Sciences  
[www.ifees.org.uk](http://www.ifees.org.uk)
- Islamic Society of North America  
[www.isna.net](http://www.isna.net)
- Wisdom in Nature  
[www.wisdominnature.org.uk/](http://www.wisdominnature.org.uk/)  
“Contemplative Ecological and Community Activism.”

## Judaism

- Baltimore Jewish Environmental Network  
<http://www.bjen.org/greening.html>  
Provides a greening your synagogue handbook, further resources for and examples of Jewish eco-action.
- The Big Green Jewish Website  
[www.biggreenjewish.org/](http://www.biggreenjewish.org/)  
An “online meeting point between Jewish and environmental ethics.” Site of the climate change campaign of the UK Jewish community.
- Coalition on the Environment and Jewish Life  
[www.coejl.org/index.php](http://www.coejl.org/index.php)  
Greening synagogues program and sermon ideas. Includes environment educational resources for Judaism.
- Confei Nesharim  
<http://canfeinesharim.org/index.php>  
Extensive resource for Jewish eco-action and concepts.
- Hazon  
[www.hazon.org/](http://www.hazon.org/)  
Jewish inspiration and sustainable communities.

## Unitarian Universalist

- Minnesota Unitarian Universalist Social Justice Alliance  
[www.muusja.org/ecominds](http://www.muusja.org/ecominds)
- Unitarian Universalist Ministry for Earth  
<http://uumfe.org>



# Resources

## Speakers, presenters and workshops

Use these resources when planning events for your faith community. Availability and details may change, so be sure to confirm the details directly with the person or location listed.

### **Hennepin County Environmental Services Staff**

Hennepin County staff is available to provide presentations or staff booths on a variety of environmental topics including waste reduction, recycling, toxicity reduction, water conservation and energy efficiency. For more information, call 612-348-6848 or e-mail [DESmail@co.hennepin.mn.us](mailto:DESmail@co.hennepin.mn.us).

### **City Recycling Coordinators**

Invite your city recycling coordinator to share information at your event. Visit [www.hennepin.us/recycling](http://www.hennepin.us/recycling) or [RethinkRecycling.com](http://RethinkRecycling.com) to find contact information.

### **Artstart and Artscrap**

Bring your class or group to ArtScrap for 60 minutes of art making with reused scrap materials. Programs are suitable for ages 5 and up and fees vary. Visit [www.artstart.org](http://www.artstart.org) or call 651-698-ARTS for more information.

### **Master Gardeners, University of Minnesota Extension**

Hennepin County Master Gardeners do workshops and demonstrations, teach classes, answer questions and more. Fees are based on your group's ability to pay. Call the Gardening Hotline at 612-596-2118 for questions on lawn care, composting and other earth-friendly landscaping issues. For information on scheduling speakers, contact Terry Straub at 612-596-2130, e-mail [Strau097@umn.edu](mailto:Strau097@umn.edu), or visit [www.mg.umn.edu](http://www.mg.umn.edu).

### **Minnesota Pollution Control Agency's Learning Resource Center & Library**

The MPCA provides information and assistance on a variety of environmental topics including waste reduction, hazardous waste, composting, junk mail, water and energy. The library has more than 400 video titles on a wide variety of environmental topics. Videos can be borrowed for a two-week loan at no charge. The library offers learning trunks on recycling, waste reduction, and more. Resources are provided at no charge. For more information, visit [www.pca.state.mn.us](http://www.pca.state.mn.us), search: resource center, or call 651-757-2120.

### **Prairie Ecology Bus Center**

This state-of-the-art school, mobile scientific laboratory and classroom is designed to educate school children and adults about the environment and natural sciences. Suitable for 3rd to 5th grade. Some fees may be required. For more information, call Chrystal Dunker at 507-662-5064, e-mail [ecologybus@ecologybus.org](mailto:ecologybus@ecologybus.org), or visit [www.ecologybus.org](http://www.ecologybus.org).

### **Science Museum of Minnesota**

The Science Museum will come to your location to present information on a variety of science topics. Call to find out about specific programs available. Programs are suitable for ages 4 and up. For more information, call Jen Powers at 651-221-4748, e-mail [jpower@smm.org](mailto:jpower@smm.org), or visit [www.smm.org](http://www.smm.org).

### **Climb Theatre**

Climb Theatre performs original plays and leads classes on environmental topics for K-12th grade youth. Fee varies depending on programs. Contact: 651-453-9275, [www.climb.org](http://www.climb.org).



### **Kidpower with Rachael**

Rachael performs with interactive music, comedy and juggling focusing environmental issues such as waste reduction, composting, recycling and respecting the earth. Fees vary. Contact: Rachael Kroog, 952-835-6562, [www.kidpowerwithrachael.com](http://www.kidpowerwithrachael.com).

### **Tricia and the Toonies**

Tricia & The Toonies perform in schools and communities with themes focusing on reducing, reusing, recycling, pollution prevention, natural resource conservation and more. Offering music, puppets and skits. Appropriate for all ages. Fees vary, scholarship information is available on their website. Contact: Tricia Haynes 952-933-3438, [thetoonies.com](http://thetoonies.com).

## **Resources in other languages**

Hennepin County offers several print resources in other languages, including Spanish, Hmong, and Somali. To learn more about the multicultural resources the county offers, contact Anita Urvina Davis, multicultural education coordinator, at [anita.urvina@co.hennepin.mn.us](mailto:anita.urvina@co.hennepin.mn.us) or 612-348-6848.

## **Environmental education book list**

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### **Toddlers and Young Preschoolers (Board Books)**

- *Choose to Reuse*  
by Miriam Latimer, Preschool
- *Big Earth, Little Me*  
by Thom Wiley, Preschool
- *Don't Throw That Away!*  
by Laura Bergen, Preschool

### **Preschool to 2nd Grade**

- *It's Earth Day!*  
By Mercer Mayer  
- ages 4-8
- *Charlie and Lola: We are Extremely Very Good Recyclers*  
by Lauren Child  
- ages 4-8
- *Curious George Plants a Tree*  
by Margret & H.A. Rey  
- ages 4-8
- *Easy to Be Green: Simple Activities You Can Do to Save the Earth*  
by Ellie O'Ryan  
- ages 4-8
- *Ecoart!: Earth-Friendly Art and Craft Experiences for 3-To 9-Year-Olds*  
by Laurie Carlson
- *Grover's 10 Terrific Ways to Help Our Wonderful World*  
by Anna Ross  
- ages 4-8
- *I Can Save the Earth!:*  
*One Little Monster Learns to Reduce, Reuse, and Recycle*  
by Alison Inches  
- ages 4-8

### **3rd to 6th grades**

- *What's It Like Living Green?: Kids Teaching Kids, by the Way They Live*  
by Jill Ammon Vanderwood
- *50 Simple Things Kids Can Do to Recycle*  
by Earthworks Group
- *Recycle This Book*  
by Dan Gutman
- *Eillen Green The Recycling Queen*  
by Penelope Dyan
- *Just Grace Goes Green (Fiction)*  
by Charise Mericle Harper

### **Middle and High School**

- *A Kids' Guide to Climate Change & Global Warming: How to Take Action!*  
by Cathryn Berger Kate
- *Second-Time Cool: The Art of Chopping Up a Sweater*  
by Anna-Stina Linden Ivarsson, Katarina Brieditis, Katarina Evans
- *Heroes of the Environment: True Stories of People Who Are Helping to Protect Our Planet*  
by Harriet Rohmer
- *Making Good Choices About Recycling and Reuse*  
by Stephanie Watson
- *The Green Teen: The Eco-Friendly Teen's Guide to Saving the Planet*  
by Jenn Savedge
- *Generation Green: The Ultimate Teen Guide to Living an Eco-Friendly Life*  
by Linda Sivertsen
- *Teens Go Green!: Tips, Techniques, Tools, and Themes for YA Programming (Libraries Unlimited Professional Guides for Young Adult Librarians Series)*  
by Valerie Colston
- *Green Careers: Environment and Natural Resources*  
by Pamela Fehl
- *Recycling*  
by Viki Wagner

### **Resources for adults**

- *Affluenza: The All-Consuming Epidemic*  
by John de Graaf
- *Animal, Vegetable, Miracle*  
by Barbara Kingsolver
- *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It*  
by Al Gore
- *Beyond Ecophobia*  
by David Sobel
- *Cradle to Cradle: Remaking the Way We Make Things*  
by William McDonough
- *Last Child in the Woods*  
by Richard Louv
- *Natural Capitalism: Creating the Next Industrial Revolution*  
by Paul Hawken
- *Stuff: The Secret Lives of Everyday Things*  
by Alan Thein Durning and John C. Ryan
- *The Consumer's Guide to Effective Environmental Choices: Practical Advice from the Union of Concerned Scientists*  
by Michael Brower
- *The Naturally Clean Home*  
by Karyn Siegel-Mayer
- *The Story of Stuff*  
by Annie Leonard

# Ideas

## Greening your events

The following are some simple ways to make all of your events, gatherings and meetings as green as possible. For more information, see the *Greening Your Celebrations* handout in the Appendix.

- Plan ahead! Communicate your waste reduction goals to all involved.
- Try to limit paper use and handouts. Send electronic invites. Use a laptop and projector for meeting materials and make materials available electronically. Print handouts double-sided.
- Provide information on public transit and biking to your event. Encourage carpooling.
- Provide reusable dishware when offering food. Provide reusable mugs and cups, or encourage attendees to bring their own. If you must use disposable items, look for items that are recyclable.
- Make recycling easy by ensuring that recycling containers are clearly marked and readily available. Consider composting food scraps and food-soiled paper. Monitoring recycling containers and trash cans at events helps ensure that sure all waste ends up in the right place and can be an opportunity to educate attendees.
  - Hennepin County has portable recycling containers available to rent for free for events. Visit [www.hennepin.us/recycleonthego](http://www.hennepin.us/recycleonthego) for more information.
  - The City of Minneapolis offers container rental for events held in Minneapolis. The city has containers available for the collection of garbage, recycling and organics that they will deliver and pick up for a fee.

For more information on planning greener events and meetings, see the *ZeroWaste Event Planning Checklist* from Do It Green! Minnesota, available at [www.doitgreen.org/article/goods/event-checklist](http://www.doitgreen.org/article/goods/event-checklist), and check out the information available on [www.mngreengatherings.org](http://www.mngreengatherings.org).

### **Host a special event during April (Earth Month)**

Plan an event or information table for Earth Day, April 22.

### **Un-scary halloween party**

If your program has a Halloween or fall party, invite your city recycling coordinator to come and share information (to find them, visit [RethinkRecycling.com](http://RethinkRecycling.com)). You can also request free pencils made from recycled materials.

**PJ party**

Host a Friday night PJ party with a storyteller. The theme could be “stories around the campfire.” As a family activity, make camping vests from brown paper grocery bags and decorate with cutouts from old wallpaper books or other scrap materials.

**Nature center field trip**

Encourage your group members to get outside and experience nature by visiting a nature center. For ideas, visit the Three Rivers Park District website at [www.threeriversparkdistrict.org](http://www.threeriversparkdistrict.org) or check your city for other local nature areas.

**Garage sale**

Host a garage sale and encourage groups members to sell items they no longer need. Consider including an information table about environmental topics at the event.

**Green fair**

Organize a resource fair of area community resources and services such as city recycling coordinators, Minnesota Extension Service Master Gardeners to demonstrate and discuss composting, non-profit thrift stores, vendors of eco-products, etc. Have activities that involve children, such as making toys and playing games with “trash.”

**Thrift store style show/toy exchange**

Working with local thrift stores, have group members dress up in thrift store outfits. Have audience members guess the cost of the items. Consider including a toy, book or clothing exchange as part of the event.

**Fundraiser**

Sell *Chinook Book* coupon books that offer coupons from local green businesses as a fundraiser. Visit [www.ecometro.com/twincities/fundraise.aspx](http://www.ecometro.com/twincities/fundraise.aspx) for more information.





**Service learning** combines meaningful community service with thoughtful reflection and intentional learning. Service learning transforms a traditional service experience into a deeper learning experience with strong outcomes for youth and other participants. Use the following tools and resources to plan an environmentally focused service-learning project.

**Follow these five steps** to plan the service activities and learning outcomes for your project.

1. **Investigation:** Adults and youth investigate the environmental issues they want to address, such as by reading the background information on each issue included in the toolkit.
2. **Planning and Preparation:** Representatives of the project, together with community or county representatives if appropriate, plan the learning and service activities, addressing administrative issues needed for a successful project.
3. **Action:** Engage in a meaningful service experience that benefits the environment and helps your participants develop knowledge, skills, and attitudes (see list of project ideas later in this section).
4. **Reflection:** Reflection activities help participants understand the service experience and think about its connection to them and our world (see sample reflection questions below).
5. **Sharing/Celebration:** Participants share what they have done with others and celebrate the results of the project.

## Reflection

Reflection helps transform a service project into a service-learning experience. Reflection can include verbal, written, artistic and nonverbal activities before, during and/or after the service experience. Reflection activities prompt participants to think deeply about environmental problems and solutions and make connections between these issues and their own lives.

The following are sample reflection questions.

### **Pre-reflection**

*to ask before the service experience:*

- What do you already know about (the environmental issue, the neighborhood, etc.)?
- How do you feel about (the issue)?
- What do you think will happen during the service project?



### ***Describing***

- Describe what you saw, describe what you did. Who did you meet?
- What did you accomplish?
- What about it was challenging or easy?

### ***Interpreting***

- How did you feel about the project?
- How did this issue become a problem?
- Why do you think people need to work on this problem, and whose responsibility is it?

### ***Applying the experience***

- What did you learn, what skills did you gain?
- How did this experience change your outlook on this issue/the environment?
- What could you or others do to solve this problem (in the short-term, long-term)?

Some information above is based on the *Service-Learning Project Planning Toolkit*, found for free online at the National Service-Learning Clearinghouse. Visit [www.service-learning.org](http://www.service-learning.org) for information and planning tools.

## **Environmental Service Learning Project Ideas**

Before planning your project, make sure to talk with the intended beneficiaries of your service (organizations or individuals) to make sure the service is needed and wanted.

### ***Raise money for an environmental organization***

Fundraisers could include making and selling items described in this toolkit, such as reusable shopping bags, gift bags made from reused materials, non-toxic cleaners, etc.

### ***Donation drive for used goods and clothing***

Collect, sort, and deliver used clothing or household good for donation to local organizations that need them, such as Goodwill, Arc, Salvation Army, Epilepsy Foundation, etc.

### ***Sustainable gardening***

Create or maintain gardens for your church, for senior citizens or other groups. Implement sustainable gardening techniques, such as composting, planting native plants, or planting food to eat without using chemicals using ideas from the Protecting Water Resources section of this toolkit.

### ***Organize a cleanup event***

Organize a street or river cleanup using ideas from the Protecting Water Resources section of this toolkit.

### ***Make reusable gifts***

Make homemade gift wrap, gift bags or greeting cards out of reused materials to give away before holidays. Make bookmarks from reused materials to give to a local library.

### ***Conduct congregational audits***

Audit how resources are being used at your house of worship. Look at how much waste is being created, how well members are recycling, how much energy and water is being used. Use the resources identified in the background sections of this toolkit.

### ***Create an environmental mural***

Create a mural with an environmental theme in an area prone to graffiti. Consider incorporating materials that are reused or found, such as recyclable materials that were thrown in the trash, litter collected from nearby, etc.

### ***Recycle bottle caps***

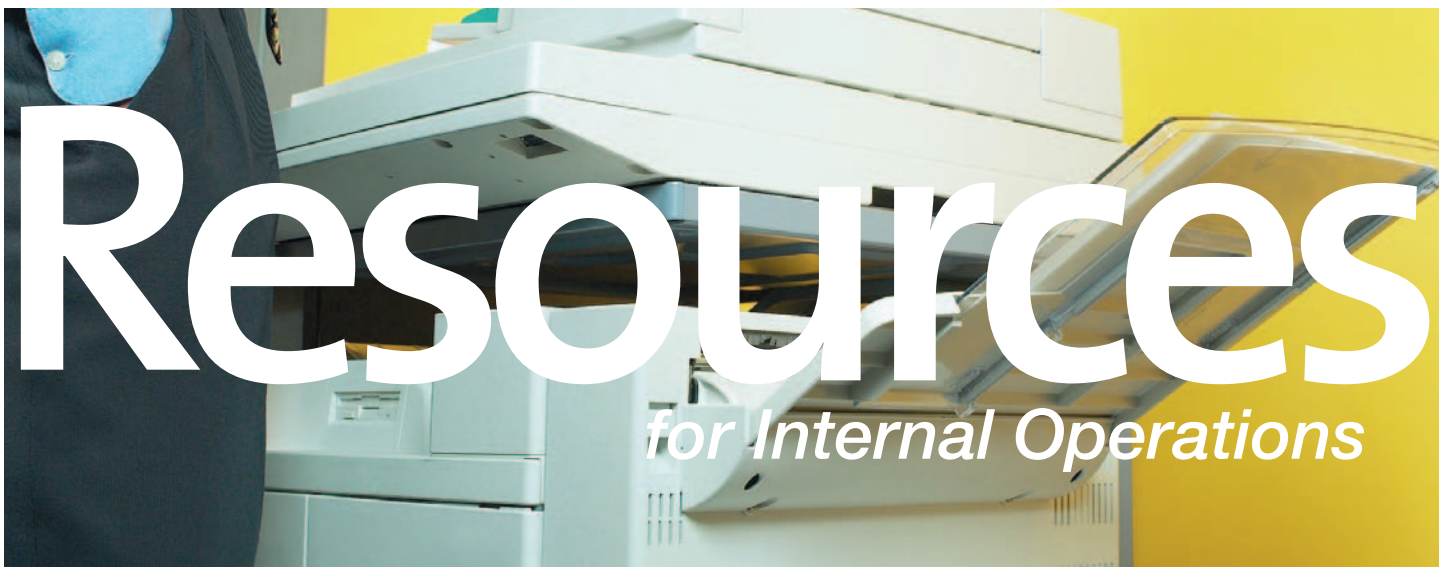
Recycle Caps With Aveda is a program to increase the recycling of plastic bottle caps coordinated by Aveda. Visit [www.aveda.com/aboutaveda/caps.tmpl](http://www.aveda.com/aboutaveda/caps.tmpl) for more information.

### ***Recycle old shoes***

Collect old shoes to be recycled through the Nike Grind program. Visit [www.nikereuseashoe.com](http://www.nikereuseashoe.com) for details.

### ***Recycle cell phones***

Collect cell phones to benefit non-profit organizations. Visit [www.wirelessfoundation.org](http://www.wirelessfoundation.org) for cell phone donation options, or visit [www.call2recycle.org](http://www.call2recycle.org) for information on recycling campaigns for cell phones and rechargeable batteries.



When organizations begin to educate others about environmental issues, they may also want to look at internal operations and make changes to improve their environmental performance. The following tips and resources can help you implement these changes.

This information can also be found in the Environmental Stewardship for Business factsheet (see Appendix).

### **Reduce**

- Preventing waste from being generated in the first place is an easy and effective way to lower disposal costs. Look for creative ways in your day-to-day operations to reduce waste.
- Avoid unnecessary printing and make double-sided printouts and copies. Start a paper reduction campaign in your office.
- Use e-mail for communications and consider using e-newsletters to reduce paper use.
- Check documents carefully before printing and edit drafts on the computer.
- Reuse scrap paper for notepads.
- Use a small fax transmission sticker instead of using a large cover sheet.
- Use reusable cups and dishware for meetings. Encourage attendees to bring their own reusable coffee mug.
- Encourage employees to pack lunches in reusable containers. Provide a microwave, refrigerator, area for dishwashing and dishware to make this easier.
- Use non-hazardous or less-hazardous cleaning supplies.

### **Reuse**

- Set up a system in your office for reusing office supplies and equipment, such as a central storage area or online database.
- Consider donating office equipment and materials that your business no longer needs. Go to [RethinkRecycling.com/business](http://RethinkRecycling.com/business) and look under donating opportunities for options.
- When shipping items, reuse packaging materials or use shredded paper.
- Use reusable nametags at meetings.

### **Recycle**

- Make sure your organization is recycling as much as possible – office paper, newspapers and magazines, cardboard, plastic bottles, metal cans and glass are all recyclable.
- Make sure recycling containers are clearly labeled and readily available. Posters and labels are available from Hennepin County for recycling programs. Go to [www.hennepin.us](http://www.hennepin.us), search: recycling resources.

*Recycle, cont'd on next page*

*Recycle, cont'd from previous page*

- To encourage recycling, eliminate trash bins in individual offices; put them in the break room and common areas instead.
- Start an organics recycling program. Organic waste – food waste and food-soiled paper – can be recycled into compost, a valuable resource used in landscaping and road construction projects. Visit [www.hennepin.us](http://www.hennepin.us), search: organics, for more information.

### ***Develop a green purchasing program***

- Purchase environmentally preferable office supplies and equipment. Environmentally preferable products contain recycled content, are sustainably harvested, are made with less toxic materials, or conserve energy or water. Visit [www.epa.gov/epp](http://www.epa.gov/epp) for more information.
- Purchase printers with double-sided printing capabilities. Purchase refillable toner cartridges.
- Buy office supplies in bulk.
- Purchase recycled-content office paper. Set a standard for recycled-content paper used in your organization.
- Encourage suppliers to ship materials in returnable or reusable containers.

### ***Keep hazardous materials out of the trash***

Certain supplies and products that may be used in your business, such as electronics, cleaners, fluorescent light bulbs, appliances, cleaning supplies and paint, contain hazardous or toxic materials and must not be placed in the trash. Go to [www.hennepin.us/businesshazardouswaste](http://www.hennepin.us/businesshazardouswaste) for information on proper disposal.

### ***Energy efficiency and renewable energy***

Electricity production results in significant greenhouse gas emissions and air pollution. Conserving energy and improving energy efficiency can reduce your organization's impact on the environment and save money.

- Turn off lights in unoccupied offices and restrooms. Install motion sensors for lights.
- Convert to energy efficient lighting and purchase energy efficient office equipment.
- Turn off copiers, lights and computers at night.
- Carpool, take public transit or bike to events and meetings. Offer incentives for employees that do this.
- Have your heating and cooling system audited for energy efficiency.
- Buy renewable energy. Some businesses have installed solar panels or wind turbines to meet their energy needs. You also may be able to purchase renewable energy from your utility provider.
- Understand and manage your organization's greenhouse gas emissions by preparing a greenhouse gas inventory and setting long-term emission reduction targets. The Environmental Protection Agency offers a Climate Leaders program that provides technical assistance and recognition for organizations taking steps to reduce emissions. Go to [www.epa.gov/climateleaders](http://www.epa.gov/climateleaders) for more information.
- Utility providers offer a variety of tools and incentives to help organizations conserve energy and improve energy efficiency.



# Resources for Businesses, Schools and Organizations

## Waste reduction and recycling

### **Hennepin County Business Waste Reduction Program**

[www.hennepin.us/businesswaste](http://www.hennepin.us/businesswaste)

612-348-3777

Hennepin County offers free web information, phone assistance, and links to other resources to help business save money by reducing waste.

### **Resourceful Waste Management Guide**

[rethinkrecycling.com/businesses](http://rethinkrecycling.com/businesses)

This resource provides information on how to reduce, reuse, recycle or properly dispose of just about anything your company uses. The website also has a step-by-step guide to help your business develop and maintain a waste management program.

### **Hennepin County drop-off facilities – recycling only**

[www.hennepin.us/dropoffs](http://www.hennepin.us/dropoffs)

612-348-3777

Small business may self-haul recyclables to drop-off facilities in Brooklyn Park and Bloomington free of charge. Larger quantities of recyclables should be delivered directly to a recycling company. Hazardous waste is not accepted from businesses at these facilities.

### **Minnesota Materials Exchange**

[www.mnexchange.org](http://www.mnexchange.org)

612-624-1300

This free service connects businesses and organizations that have quality reusable goods they no longer need to those that can use them. Find low-cost or free materials, save money on disposal, and find new markets for surplus materials.

### **Minnesota's Sustainable Healthy Schools program**

[www.pca.state.mn.us](http://www.pca.state.mn.us)

search: Sustainable Healthy Schools Guide

Resources for parents and educators including a “Guide for Change,” “Assessment Tool for Change,” and success stories.

### **Minnesota Technical Assistance Program – MnTAP**

[mntap.umn.edu](http://mntap.umn.edu)

612-624-1300

A free, non-regulatory program that provides businesses and organizations with company-specific, cost-saving solutions to manage waste and improve energy efficiency.

### **Minnesota Retired Engineer Technical Assistance Program (ReTAP)**

[www.pca.state.mn.us](http://www.pca.state.mn.us), search: retap

612-624-1300

ReTAP provides free, confidential, non-regulatory pollution prevention, waste reduction and energy conservation assistance to Minnesota businesses, industries and institutions.



**Minnesota Waste Wise**

[www.mnwastewise.org](http://www.mnwastewise.org)

651-292-4681

A private, non-profit, member-supported organization affiliated with the Minnesota Chamber of Commerce that helps businesses and organizations reduce waste and save money.

**Eureka Recycling**

[www.eurekarecycling.org/bg\\_coop.cfm](http://www.eurekarecycling.org/bg_coop.cfm)

651-222-7678

Eureka Recycling offers a cooperative purchasing program for recycled paper and compostable products.

**Energy efficiency and renewable energy****Hennepin County Cool County Initiative**

[www.hennepin.us/coolcounty](http://www.hennepin.us/coolcounty)

612-348-3777

Hennepin County has committed to reducing greenhouse gas emissions from county operations. Find out what the county is doing and what residents and businesses can do to reduce emissions.

**Minnesota Office of Energy Security**

[www.energy.state.mn.us](http://www.energy.state.mn.us)

651-296-5175

Information about energy efficiency and renewable energy.

**Center for Energy and the Environment – Commercial Lighting Program**

[www.mncee.org/programs\\_bldgs\\_facilities/commercial\\_lighting](http://www.mncee.org/programs_bldgs_facilities/commercial_lighting)

612-335-3487

Offers energy audits and rebate for small businesses that retrofit their existing lighting system with more energy efficient lighting

**CenterPoint Energy**

[www.centerpointenergy.com/services/naturalgas/business](http://www.centerpointenergy.com/services/naturalgas/business)

Offer free Custom Energy Analysis in which an auditor inspects a business' natural gas use to help manage energy costs.

**Database of State Incentives for Renewables and Efficiencies**

[www.dsireusa.org](http://www.dsireusa.org)

A comprehensive source of information on state, local, federal and utility incentives that promote renewable energy and energy efficiency.

**ENERGY STAR**

[www.energystar.gov](http://www.energystar.gov)

Offers information on energy efficient products and practices.

**U.S. Department of Energy**

[www.energysavers.gov/your\\_workplace](http://www.energysavers.gov/your_workplace)

Information for businesses about implementing energy efficiency programs and utilizing renewable energy.

**Xcel Energy**

[www.xcelenergy.com/minnesota/business](http://www.xcelenergy.com/minnesota/business)

1-800-481-4700

Offers a variety of resources and programs on energy efficiency and utilizing renewable energy.



## Evaluation questions for behavior change

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Please see the following questions. You will choose questions from this list to ask of the people who participated in your project. The “respondents” are the people who learned about environmental issues because of your efforts.

### About the questions

The first part of each question (asking the respondent to consider how frequently they make waste reducing choices), reminds the respondent what they learned through your project. The second part of the question (asking if they changed their behavior because of your program), is what we are keeping track of to determine if your efforts had an impact on their behavior.

### Choosing the right questions to ask

Only those questions that relate to the content of what people learned through your Community POWER project should be used. If some of the questions do not relate to your project, remove those from your survey or questionnaire.

### When to administer the questions

These questions should be administered only after a person participates in your program or goes through an educational experience that you organized, and enough time has passed so that they could implement what they learned in their daily life. We estimate the questions should be asked two to six months after the person learns about the issues.

## How to administer the questions

In the past, grantees have used the questions in written surveys, online surveys, or in an interview format (over the phone or in person). If the people who participated in your project attend a follow-up meeting or event, that is a great time to administer the questions. You could also mail surveys with a stamped return envelope.

## Customizing the questions/survey

This word document can be downloaded from [www.hennepin.us/CommunityPOWER](http://www.hennepin.us/CommunityPOWER). The name of your program, project or workshop can be inserted throughout the questions. Other language of the questions should not be altered. These questions can be inserted into an existing survey or accompany other questions you design. It can be useful to ask the respondent's level of experience with the program (days or hours or participation, for example) as well as other background information.

## Questions?

If you need more information (i.e., about surveys or how to overcome challenges in using questions), please contact [CommunityPOWER@co.hennepin.mn.us](mailto:CommunityPOWER@co.hennepin.mn.us) or call Ellie Jones at 612-348-9352.

# Appendix

## *Activity supplies:*

- Sample Pledge
- Potato Chip Bracelet activity
- Recycling Chart
- Label Reading Activity
- “Household Hazardous Waste” PowerPoint presentation
- Storm Drain Stenciling Guide
- Wise-Up About Waste quiz
- Blue Jean Bag activity
- Trash Checklist
- Home Hazardous Product Survey
- Bio Bingo activity
- Packaging Reduction
- Build a Junk Mail Tree guide
- Rethink Recycling articles
- Chemicals in the Home quiz
- Watershed Map

These resources are also available online at [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation)

## *Handouts from Hennepin County:*

- Hold the Mail
- Too Much Packaging is a Waste
- Donation Opportunities
- Greening Your Celebrations
- How to Pack a No-waste Lunch bookmark
- Remember Your Bags window clings
- Choose to Reuse Directory magnet
- Residential Curbside Recycling Guide (also available in Spanish)
- Household Hazardous Waste and Problem Materials Guide (also available in Spanish)
- Making Hennepin a Cool County
- Ten Things You Can Do to Improve Minnesota’s Lakes, Rivers and Streams
- Landowner Guide
- How to Identify Hazardous Products—Read the Label
- Ways to Reduce Harmful Chemicals in your Home
- Fluorescent Light Bulbs: Buy them, Use them, Recycle them.
- Mercury and Mercury-Containing Products
- Drop-off Facilities brochure
- Earth-Friendly Home Landscaping Guide
- Non-Toxic Cleaning Recipes
- Hennepin County Road and Bike Map
- Environmental Stewardship for Businesses

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## *Handouts from the Minnesota Pollution Control Agency:*

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- Reducing Waste at Work
- Reducing Waste at School
- Reduce Trash When You Shop
- How to Compost Your Organic Waste
- Reduce the Need for Pesticides and Herbicides
- How to Grow a Healthy, No-waste Lawn and Garden

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